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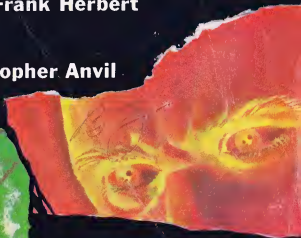
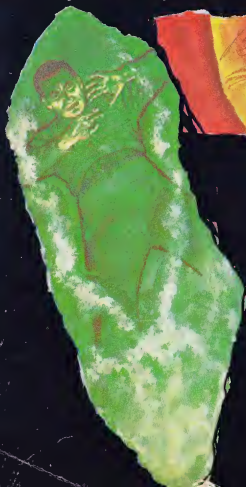
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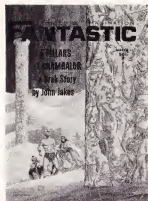
GREENSLAVES, by Frank Herbert

THE PLATEAU

A Novella by Christopher Anvil



in march **FANTASTIC**



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That was Chambalor—its eerie ruins stark in the crimson desert. Even Brak the Barbarian knew fear at the sight of the writhing figures that pulsed in the great columns of the city's gate . . . But beauty . . . treasure . . . honor lured Brak into its dark depths and the horrors that waited there.

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MARCH, 1965
Vol. 39, No. 3

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Illustrating *Greenslaves*

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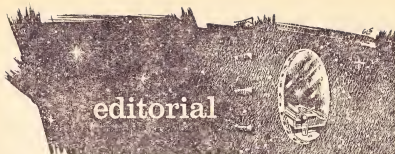
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IT is, in a way, an odd juxtaposition that this issue should contain Robert Silverberg's article about the man who claimed to have discovered Atlantis. That hoaxer (see p. 97) accumulated much "evidence" of the legendary oceanic super-civilization. One wonders, then, about the claims of a "discovery" of an interstellar super-civilization. The evidence this time appears highly scientific.

The theory put forth by Soviet astronomer Nikolai Kardashev, rests on super-intense radio energies coming from two objects in the constellations Aries and Pegasus. What intrigues scientists is that the peak intensities of the radio waves are at about 900 megacycles—which just happens to be close to the optimum frequency for interstellar communication. (The optimum range is bounded on either side by radio interference.) Kardashev, plotting a curve to mark the ideal radio spectrum for talk between the stars, found it virtually du-

plicated the spectrum emitted by the two objects.

Kardashev, drawing on the theory of others, proposes that a supercivilization would attempt communication with just such a powerful radio beacon in space. In a refinement, Kardashev also calculated three types of civilization. Type One—which is where Earth is now—generates 4,000 billion watts of power. Since the output of power grows about 4% a year. A Type Two civilization that would produce 400 million billion watts would be achieved in 3,200 years. This is roughly the energy output of Sol. Kardashev suggests the objects in Aries and Pegasus are Type Two's. A Type Three civilization would produce 40 billion billion billion watts—a galactic output.

So there we have a measure of the progress of sophistication—a hoax that rests on the hard evidence of artifacts, and a respected theory that stands on the intangibles of a galactic pin-point of radio-wave emission.

GREENSLAVES

By FRANK HERBERT

From the jungle came a new sort of being . . .

but only by coming face to face—face?—with it

could man know whether it was friend or foe.

HE looked pretty much like the bastard offspring of a Gurani Indio and some backwoods farmer's daughter, some *sertanista* who had tried to forget her enslavement to the *encomendero* system by "eating the iron"—which is what they call lovemaking through the grill of a consel gate.

The type-look was almost perfect except when he forgot himself while passing through one of the deeper jungle glades.

His skin tended to shade down to green then, fading him into the background of leaves and vines, giving a strange disembodiment to the mud-grey shirt and ragged trousers, the inevitable frayed straw hat and rawhide sandals soled with pieces cut from worn tires.

Such lapses became less and less frequent the farther he got from the Parana headwaters, the

sertao hinterland of Goyaz where men with his bang-cut black hair and glittering dark eyes were common.

By the time he reached *bandeirantes* country, he had achieved almost perfect control over the chameleon effect.

But now he was out of the jungle growth and into the brown dirt tracks that separated the parceled farms of the resettlement plan. In his own way, he knew he was approaching the *bandeirante* checkpoints, and with an almost human gesture, he fingered the *cedula de gracias al sacar*, the certificate of white blood, tucked safely beneath his shirt. Now and again, when humans were not near, he practiced speaking aloud the name that had been chosen for him—"Antonio Raposo Tavares."

The sound was a bit strident, harsh on the edges, but he knew



it would pass. It already had. Goyaz Indios were notorious for the strange inflection of their speech. The farm folk who had given him a roof and fed him the previous night had said as much.

When their questions had become pressing, he had squatted on the doorstep and played his flute, the *gena* of the Andes Indian that he carried in a leather purse hung from his shoulder. He had kept the sound to a conventional, non-dangerous pitch. The gesture of the flute was a symbol of the region. When a Guarani put flute to nose and began playing, that was a sign words were ended.

The farm folk had shrugged and retired.

Now, he could see red-brown rooftops ahead and the white crystal shimmering of a *bandeirante* tower with its aircars alighting and departing. The scene held an odd hive-look. He stopped, finding himself momentarily overcome by the touch of instincts that he knew he had to master or fail in the ordeal to come.

He united his mental identity then, thinking, *We are green-slaves subservient to the greater whole*. The thought lent him an air of servility that was like a shield against the stares of the humans trudging past all around him. His kind knew many mannerisms and had learned early

that servility was a form of concealment.

Presently, he resumed his plodding course toward the town and the tower.

The dirt track gave way to a two-lane paved market road with its footpaths in the ditches on both sides. This, in turn, curved alongside a four-deck commercial transport highway where even the footpaths were paved. And now there were groundcars and aircars in greater number, and he noted that the flow of people on foot was increasing.

Thus far, he had attracted no dangerous attention. The occasional snickering side-glance from natives of the area could be safely ignored, he knew. Probing stares held peril, and he had detected none. The servility shielded him.

THE sun was well along toward mid-morning and the day's heat was beginning to press down on the earth, raising a moist hothouse stink from the dirt beside the pathway, mingling the perspiration odors of humanity around him.

And they were around him now, close and pressing, moving slower and slower as they approached the checkpoint bottleneck. Presently, the forward motion stopped. Progress resolved itself into shuffle and stop, shuffle and stop.

This was the critical test now and there was no avoiding it. He waited with something like an Indian's stoic patience. His breathing had grown deeper to compensate for the heat, and he adjusted it to match that of the people around him, suffering the temperature rise for the sake of blending into his surroundings.

Andes Indians didn't breathe deeply here in the lowlands.

Shuffle and stop.

Shuffle and stop.

He could see the checkpoint now.

Fastidious bandeirantes in sealed white cloaks with plastic helmets, gloves and boots stood in a double row within a shaded brick corridor, leading into the town. He could see sunlight hot on the street beyond the corridor and people hurrying away there after passing the gantlet.

The sight of that free area beyond the corridor sent an ache of longing through all the parts of him. The suppression warning flashed out instantly on the heels of that instinctive reaching emotion.

No distraction could be permitted now; he was into the hands of the first bandeirante, a hulking blonde fellow with pink skin and blue eyes.

"Step along now! Lively now!" the fellow said.

A gloved hand propelled him toward two bandeirantes stand-

ing on the right side of the line.

"Give this one an extra treatment," the blonde giant called. "He's from the upcountry by the look of him."

The other two bandeirantes had him now, one jamming a breather mask over his face, the other fitting a plastic bag over him. A tube trailed from the bag out to machinery somewhere in the street beyond the corridor.

"Double shot!" one of the bandeirantes called.

Fuming blue gas puffed out the bag around him, and he took a sharp, gasping breath through the mask.

Agony!

The gas drove through every multiple linkage of his being with needles of pain.

We must not weaken, he thought.

But it was a deadly pain, killing. The linkages were beginning to weaken.

"Okay on this one," the bag handler called.

The mask was pulled away. The bag was slipped off. Hands propelled him down the corridor toward the sunlight.

"Lively now! Don't hold up the line."

The stink of the poison gas was all around him. It was a new one—a dissembler. They hadn't prepared him for this poison!

Now, he was into the sunlight and turning down a street lined

with fruit stalls, merchants bartering with customers or standing fat and watchful behind their displays.

In his extremity, the fruit beckoned to him with the promise of life-saving sanctuary for a few parts of him, but the integrating totality fought off the lure. He shuffled as fast as he dared, dodging past the customers, through the knots of idlers.

"You like to buy some fresh oranges?"

An oily dark hand thrust two oranges toward his face.

"Fresh oranges from the green country. Never been a bug anywhere near these."

He avoided the hand, although the odor of the oranges came near overpowering him.

Now, he was clear of the stalls, around a corner down a narrow side street. Another corner and he saw far away to his left, the lure of greenery in open country, the free area beyond the town.

He turned toward the green, increasing his speed, measuring out the time still available to him. There was still a chance. Poison clung to his clothing, but free air was filtering through the fabric—and the thought of victory was like an antidote.

We can make it yet!

THE green drew closer and closer—trees and ferns beside a river bank. He heard the run-

ning water. There was a bridge thronging with foot traffic from converging streets.

No help for it: he joined the throng, avoided contact as much as possible. The linkages of his legs and back were beginning to go, and he knew the wrong kind of blow could dislodge whole segments. He was over the bridge without disaster. A dirt track led off the path and down toward the river.

He turned toward it, stumbled against one of two men carrying a pig in a net slung between them. Part of the shell on his right upper leg gave way and he could feel it begin to slip down inside his pants.

The man he had hit took two backward steps, almost dropped the end of the burden.

"Careful!" the man shouted.

The man at the other end of the net said: "Damn' drunks."

The pig set up a squirming, squealing distraction.

In this moment, he slipped past them onto the dirt track leading down toward the river. He could see the water down there now, boiling with aeration from the barrier filters.

Behind him, one of the pig carriers said: "I don't think he was drunk, Carlos. His skin felt dry and hot. Maybe he was sick."

The track turned around an embankment of raw dirt dark brown with dampness and dipped

toward a tunnel through ferns and bushes. The men with the pig could no longer see him, he knew, and he grabbed at his pants where the part of his leg was slipping, scurried into the green tunnel.

Now, he caught sight of his first mutated bee. It was dead, having entered the barrier vibration area here without any protection against that deadliness. The bee was one of the butterfly type with iridescent yellow and orange wings. It lay in the cup of a green leaf at the center of a shaft of sunlight.

He shuffled past, having recorded the bee's shape and color. They had considered the bees as a possible answer, but there were serious drawbacks to this course. A bee could not reason with humans, that was the key fact. And humans had to listen to reason soon, else all life would end.

There came the sound of someone hurrying down the path behind him, heavy footsteps thudding on the earth.

Pursuit? . . .

He was reduced to a slow shuffling now and soon it would be only crawling progress, he knew. Eyes searched the greenery around him for a place of concealment. A thin break in the fern wall on his left caught his attention. Tiny human footprints led into it—children. He forced his way through the ferns, found

himself on a low narrow path along the embankment. Two toy aircars, red and blue, had been abandoned on the path. His staggering foot pressed them into the dirt.

The path led close to a wall of black dirt festooned with creepers, around a sharp turn and onto the lip of a shallow cave. More toys lay in the green gloom at the cave's mouth.

He knelt, crawled over the toys into the blessed dankness, lay there a moment, waiting.

The pounding footsteps hurried past a few feet below.

Voices reached up to him.

"He was headed toward the river. Think he was going to jump in?"

"Who knows? But I think me for sure he was sick."

"Here; down this way. Somebody's been down this way."

The voices grew indistinct, blended with the bubbling sound of the river.

THE men were going on down the path. They had missed his hiding place. But why had they pursued him? He had not seriously injured the one by stumbling against him. Surely, they did not suspect.

Slowly, he steeled himself for what had to be done, brought his specialized parts into play and began burrowing into the earth at the end of the cave. Deeper and

deeper he burrowed, thrusting the excess dirt behind and out to make it appear the cave had collapsed.

Ten meters in he went before stopping. His store of energy contained just enough reserve for the next stage. He turned on his back, scattering the dead parts of his legs and back, exposing the queen and her guard cluster to the dirt beneath his chitinous spine. Orifices opened at his thighs, exuded the cocoon foam, the soothing green cover that would harden into a protective shell.

This was victory; the essential parts had survived.

Time was the thing now—ten and one half days to gather new energy, go through the metamorphosis and disperse. Soon, there would be thousands of him—each with its carefully mimicked clothing and identification papers and appearance of humanity.

Identical—each of them.

There would be other checkpoints, but not as severe; other barriers, lesser ones.

This human copy had proved a good one. They had learned many things from study of their scattered captives and from the odd crew directed by the red-haired human female they'd trapped in the *sertao*. How strange she was: like a queen and not like a queen. It was so difficult to understand

human creatures, even when you permitted them limited freedom . . . almost impossible to reason with them. Their slavery to the planet would have to be proved dramatically, perhaps.

The queen stirred near the cool dirt. They had learned new things this time about escaping notice. All of the subsequent colony clusters would share that knowledge. One of them—at least—would get through to the city by the Amazon "River Sea" where the death-for-all originated. One had to get through.

SENHOR Gabriel Martinho, prefect of the Mato Grosso Barrier Compact, paced his study, muttering to himself as he passed the tall, narrow window that admitted the evening sunlight. Occasionally, he paused to glare down at his son, Joao, who sat on a tapir-leather sofa beneath one of the tall bookcases that lined the room.

The elder Martinho was a dark wisp of a man, limb thin, with grey hair and cavernous brown eyes above an eagle nose, slit mouth and boot-toe chin. He wore old style black clothing as befitted his position, his linen white against the black, and with golden cuffstuds glittering as he waved his arms.

"I am an object of ridicule!" he snarled.

Joao, a younger copy of the fa-

ther, his hair still black and wavy, absorbed the statement in silence. He wore a bandeirante's white coverall suit sealed into plastic boots at the calf.

"An object of ridicule!" the elder Martinho repeated.

It began to grow dark in the room, the quick tropic darkness hurried by thunderheads piled along the horizon. The waning daylight carried a hazed blue cast. Heat lightning spattered the patch of sky visible through the tall window, sent dazzling electric radiance into the study. Drumming thunder followed. As though that were the signal, the house sensors turned on lights wherever there were humans. Yellow illumination filled the study.

The Prefect stopped in front of his son. "Why does my own son, a bandeirante, a jefe of the Irmandades, spout these Carsonite stupidities?"

Joao looked at the floor between his boots. He felt both resentment and shame. To disturb his father this way, that was a hurtful thing, with the elder Martinho's delicate heart. But the old man was so blind!

"Those rabble farmers laughed at me," the elder Martinho said. "I told them we'd increase the green area by ten thousand hectares this month, and they laughed. 'Your own son does not even believe this!' they said. And

they told me some of the things you had been saying."

"I am sorry I have caused you distress, father," Joao said. "The fact that I'm a bandeirante . . ." He shrugged. "How else could I have learned the truth about this extermination program?"

His father quivered.

"Joao! Do you sit there and tell me you took a false oath when you formed your Irmandades band?"

"That's not the way it was, father."

Joao pulled a sprayman's emblem from his breast pocket, fingered it. "I believed it . . . then. We could shape mutated bees to fill every gap in the insect ecology. This I believed. Like the Chinese, I said: 'Only the useful shall live!' But that was several years ago, father, and since then I have come to realize we don't have a complete understanding of what usefulness means."

"It was a mistake to have you educated in North America," his father said. "That's where you absorbed this Carsonite heresy. It's all well and good for *them* to refuse to join the rest of the world in the Ecological Realignment; they do not have as many million mouths to feed. But my own son!"

Joao spoke defensively: "Out in the red areas you see things, father. These things are difficult to explain. Plants look healthier

out there and the fruit is . . ."

"A purely temporary thing," his father said. "We will shape bees to meet whatever need we find. The destroyers take food from our mouths. It is very simple. They must die and be replaced by creatures which serve a function useful to mankind."

"The birds are dying, father," Joao said.

"We are saving the birds! We have specimens of every kind in our sanctuaries. We will provide new foods for them to . . ."

"But what happens if our barriers are breached . . . before we can replace the population of natural predators? What happens then?"

THE elder Martinho shook a thin finger under his son's nose. "This is nonsense! I will hear no more of it! Do you know what else those *mameluco* farmers said? They said they have seen bandeirantes reinfesting the green areas to prolong their jobs! That is what they said. This, too, is nonsense—but it is a natural consequence of defeatist talk just such as I have heard from you tonight. And every setback we suffer adds strength to such charges!"

"Setbacks, father?"

"I have said it: setbacks!"

Senhor Prefect Martinho turned, paced to his desk and back. Again, he stopped in front

of his son, placed hands on hips. "You refer to the Piratininga, of course?"

"You accuse me, father?"

"Your Irmandades were on that line."

"Not so much as a flea got through us!"

"Yet, a week ago the Piratininga was green. Now, it is crawling. Crawling!"

"I cannot watch every bandeirante in the Mato Grosso," Joao protested. "If they . . ."

"The IEO gives us only six months to clean up," the elder Martinho said. He raised his hands, palms up; his face was flushed. "Six months! Then they throw an embargo around all Brazil—the way they have done with North America." He lowered his hands. "Can you imagine the pressures on me? Can you imagine the things I must listen to about the bandeirantes and especially about my own son?"

Joao scratched his chin with the sprayman's emblem. The reference to the International Ecological Organization made him think of Dr. Rhin Kelly, the IEO's lovely field director. His mind pictured her as he had last seen her in the A' Chigua nightclub at Bahia—red-haired, green-eyed . . . so lovely and strange. But she had been missing almost six weeks now—somewhere in the *sertao*, and there were those who said she must be dead.

Joao looked at his father. If only the old man weren't so excitable. "You excite yourself needlessly, father," he said. "The Piratininga was not a full barrier, just a . . ."

"Excite myself!"

The Prefect's nostrils dilated; he bent toward his son. "Already we have gone past two deadlines. We gained an extension when I announced you and the Bandeirantes of Diogo Alvarez had cleared the Piratininga. How do I explain now that it is reinvested, that we have the work to do over?"

Joao returned the sprayman's emblem to his pocket. It was obvious he'd not be able to reason with his father this night. Frustration sent a nerve quivering along Joao's jaw. The old man had to be told, though; someone had to tell him. And someone of his father's stature had to get back to the Bureau, shake them up there and make *them* listen.

The Prefect returned to his desk, sat down. He picked up an antique crucifix, one that the great Aleihadinho had carved in ivory. He lifted it, obviously seeking to restore his serenity, but his eyes went wide and glaring. Slowly, he returned the crucifix to its position on the desk, keeping his attention on it.

"Joao," he whispered.

It's his heart! Joao thought.

He leaped to his feet, rushed

to his father's side. "Father! What is it?"

The elder Martinho pointed, hand trembling.

THROUGH the spiked crown of thorns, across the agonized ivory face, over the straining muscles of the Christ figure crawled an insect. It was the color of the ivory, faintly reminiscent of a beetle in shape, but with a multi-clawed fringe along its wings and thorax, and with furry edging to its abnormally long antennae.

The elder Martinho reached for a roll of papers to smash the insect, but Joao put out a hand restraining him. "Wait. This is a new one. I've never seen anything like it. Give me a handlight. We must follow it, find where it nests."

Senhor Prefect Martinho muttered under his breath, withdrew a small permalight from a drawer of the desk, handed the light to his son.

Joao peered at the insect, still not using the light. "How strange it is," he said. "See how it exactly matches the tone of the ivory."

The insect stopped, pointed its antennae toward the two men.

"Things have been seen," Joao said. "There are stories. Something like this was found near one of the barrier villages last month. It was inside the green

area, on a path beside a river. Two farmers found it while searching for a sick man." Joao looked at his father. "They are very watchful of sickness in the newly green regions, you know. There have been epidemics . . . and that is another thing."

"There is no relationship," his father snapped. "Without insects to carry disease, we will have less illness."

"Perhaps," Joao said, and his tone said he did not believe it.

Joao returned his attention to the insect. "I do not think our ecologists know all they say they do. And I mistrust our Chinese advisors. They speak in such flowery terms of the benefits from eliminating useless insects, but they will not let us go into their green areas and inspect. Excuses. Always excuses. I think they are having troubles they do not wish us to know."

"That's foolishness," the elder Martinho growled, but his tone said this was not a position he cared to defend. "They are honorable men. Their way of life is closer to our socialism than it is to the decadent capitalism of North America. Your trouble is you see them too much through the eyes of those who educated you."

"I'll wager this insect is one of the spontaneous mutations," Joao said. "It is almost as though they appeared according to some

plan. Find me something in which I may capture this creature and take it to the laboratory."

The elder Martinho remained standing by his chair. "Where will you say it was found?"

"Right here," Joao said.

"You will not hesitate to expose me to more ridicule?"

"But father . . ."

"Can't you hear what they will say? In his own home this insect is found. It is a strange new kind. Perhaps he breeds them there to reinfest the green."

"Now *you* are talking nonsense, father. Mutations are common in a threatened species. And we cannot deny there is threat to insect species—the poisons, the barrier vibrations, the traps. Get me a container, father. I cannot leave this creature, or I'd get a container myself."

"And you will tell where it was found?"

"I can do nothing else. We must cordon off this area, search it out. This could be . . . an accident . . ."

"Or a deliberate attempt to embarrass me."

JOAO took his attention from the insect, studied his father. *That* was a possibility, of course. The Carsonites had friends in many places . . . and some were fanatics who would stoop to any scheme. Still . . .

Decision came to Joao. He returned his attention to the motionless insect. His father had to be told, had to be reasoned with at any cost. Someone whose voice carried authority had to get down to the Capitol and make them listen.

"Our earliest poisons killed off the weak and selected out those insects immune to this threat," Joao said. "Only the immune remained to breed. The poisons we use now . . . some of them, do not leave such loopholes and the deadly vibrations at the barriers . . ." He shrugged. "This is a form of beetle, father. I will show you a thing."

Joao drew a long, thin whistle of shiny metal from his pocket. "There was a time when this called countless beetles to their deaths. I had merely to tune it across their attraction spectrum." He put the whistle to his lips, blew while turning the end of it.

No sound audible to human ears came from the instrument, but the beetle's antennae writhed.

Joao removed the whistle from his mouth.

The antennae stopped writhing.

"It stayed put, you see," Joao said. "And there are indications of malignant intelligence among them. The insects are far from extinction, father . . . and they are beginning to strike back."

"Malignant intelligence, pah!"

"You must believe me, father," Joao said. "No one else will listen. They laugh and say we are too long in the jungle. And where is our evidence? And they say such stories could be expected from ignorant farmers but not from bandeirantes. You must listen, father, and believe. It is why I was chosen to come here . . . because you are my father and you might listen to your own son."

"Believe what?" the elder Martinho demanded, and he was the Prefect now, standing erect, glaring coldly at his son.

"In the sertao of Goyaz last week," Joao said, "Antonil Lisboa's bandeirante lost three men who . . ."

"Accidents."

"They were killed with formic acid and oil of copahu."

"They were careless with their poisons. Men grow careless when they . . ."

"Father! The formic acid was a particularly strong type, but still recognizable as having been . . . or being of a type manufactured by insects. And the men were drenched with it. While the oil of copahu . . ."

"You imply that insects such as this . . ." The Prefect pointed to the motionless creature on the crucifix. ". . . blind creatures such as this . . ."

"They're not blind, father."

"I did not mean literally blind,

but without intelligence," the elder Martinho said. "You cannot be seriously implying that these creatures attacked humans and killed them."

"We have yet to discover precisely how the men were slain," Joao said. "We have only their bodies and the physical evidence at the scene. But there have been other deaths, father, and men missing and we grow more and more certain that . . ."

He broke off as the beetle crawled off the crucifix onto the desk. Immediately, it darkened to brown, blending with the wood surface.

"Please, father. Get me a container."

The beetle reached the edge of the desk, hesitated. Its antennae curled back, then forward.

"I will get you a container only if you promise to use discretion in your story of where this creature was found," the Prefect said.

"Father, I . . ."

THE beetle leaped off the desk far out into the middle of the room, scuttled to the wall, up the wall, into a crack beside a window.

Joao pressed the switch of the handlight, directed its beam into the hole which had swallowed the strange beetle.

"How long has this hole been here, father?"

"For years. It was a flaw in the masonry . . . an earthquake, I believe."

Joao turned, crossed to the door in three strides, went through an arched hallway, down a flight of stone steps, through another door and short hall, through a grillwork gate and into the exterior garden. He set the handlight to full intensity, washed its blue glare over the wall beneath the study window.

"Joao, what are you doing?"

"My job, father," Joao said. He glanced back, saw that the elder Martinho had stopped just outside the gate.

Joao returned his attention to the exterior wall, washed the blue glare of light on the stones beneath the window. He crouched low, running the light along the ground, peering behind each clod, erasing all shadows.

His searching scrutiny passed over the raw earth, turned to the bushes, then the lawn.

Joao heard his father come up behind.

"Do you see it, son?"

"No, father."

"You should have allowed me to crush it."

From the outer garden that bordered the road and the stone fence, there came a piercing stridulation. It hung on the air in almost tangible waves, making Joao think of the hunting cry of jungle predators. A shiver

moved up his spine. He turned toward the driveway where he had parked his airtruck, sent the blue glare of light stabbing there.

He broke off, staring at the lawn. "What is that?"

The ground appeared to be in motion, reaching out toward them like the curling of a wave on a beach. Already, they were cut off from the house. The wave was still some ten paces away, but moving in rapidly.

Joao stood up, clutched his father's arm. He spoke quietly, hoping not to alarm the old man further. "We must get to my truck, father. We must run across them."

"Them?"

"Those are like the insect we saw inside, father—millions of them. Perhaps they are not beetles, after all. Perhaps they are like army ants. We must make it to the truck. I have equipment and supplies there. We will be safe inside. It is a *bandeirante* truck, father. You must run with me. I will help you."

They began to run, Joao holding his father's arm, pointing the way with the light.

Let his heart be strong enough, Joao prayed.

They were into the creeping wave of insects then, but the creatures leaped aside, opening a pathway which closed behind the running men.

The white form of the airtruck loomed out of the shadows at the far curve of the driveway about fifteen meters ahead.

"Joao . . . my heart," the elder Martinho gasped.

"You can make it," Joao panted. "Faster!" He almost lifted his father from the ground for the last few paces.

THEY were at the wide rear door into the truck's lab compartment now. Joao yanked open the door, slapped the light switch, reached for a spray hood and poison gun. He stopped, stared into the yellow-lighted compartment.

Two men sat there—sertao Indians by the look of them, with bright glaring eyes and bang-cut black hair beneath straw hats. They looked to be identical twins—even to the mud-grey clothing and sandals, the leather shoulder bags. The beetle-like insects crawled around them, up the walls, over the instruments and vials.

"What the devil?" Joao blurted.

One of the pair held a *gena* flute. He gestured with it, spoke in a rasping, oddly inflected voice: "Enter. You will not be harmed if you obey."

Joao felt his father sag, caught the old man in his arms. How light he felt! Joao stepped up into the truck, carrying his fa-

ther. The elder Martinho breathed in short, painful gasps. His face was a pale blue and sweat stood out on his forehead.

"Joao," he whispered. "Pain . . . my chest."

"Medicine, father," Joao said. "Where is your medicine?"

"House," the old man said.

"It appears to be dying," one of the Indians rasped.

Still holding his father in his arms, Joao whirled toward the pair, blazed: "I don't know who you are or why you loosed those bugs here, but my father's dying and needs help. Get out of my way!"

"Obey or both die," said the Indian with the flute.

"He needs his medicine and a doctor," Joao pleaded. He didn't like the way the Indian pointed that flute. The motion suggested the instrument was actually a weapon.

"What part has failed?" asked the other Indian. He stared curiously at Joao's father. The old man's breathing had become shallow and rapid.

"It's his heart," Joao said. "I know you farmers don't think he's acted fast enough for . . ."

"Not farmers," said the one with the flute. "Heart?"

"Pump," said the other.

"Pump." The Indian with the flute stood up from the bench at the front of the lab, gestured down. "Put . . . father here."

The other one got off the bench, stood aside.

In spite of fear for his father, Joao was caught by the strange look of this pair, the fine, scale-like lines in their skin, the glittering brilliance of their eyes.

"Put father here," repeated the one with the flute, pointing at the bench. "Help can be . . ."

"Attained," said the other one.

"Attained," said the one with the flute.

Joao focused now on the masses of insects around the walls, the waiting quietude in their ranks. They *were* like the one in the study.

The old man's breathing was now very shallow, very rapid.

He's dying, Joao thought in desperation.

"Help can be attained," repeated the one with the flute. "If you obey, we will not harm."

The Indian lifted his flute, pointed it at Joao like a weapon. "Obey."

There was no mistaking the gesture.

Slowly, Joao advanced, deposited his father gently on the bench.

THE other Indian bent over the elder Martinho's head, raised an eyelid. There was a professional directness about the gesture. The Indian pushed gently on the dying man's diaphragm, removed the Prefect's belt, loos-

ened his collar. A stubby brown finger was placed against the artery in the old man's neck.

"Very weak," the Indian rasped.

Joao took another, closer look at this Indian, wondering at a sertao backwoodsman who behaved like a doctor.

"We've got to get him to a hospital," Joao said. "And his medicine in . . ."

"Hospital," the Indian agreed.

"Hospital?" asked the one with the flute.

A low, stridulant hissing came from the other Indian.

"Hospital," said the one with the flute.

That stridulant hissing! Joao stared at the Indian beside the Prefect. The sound had been reminiscent of the weird call that had echoed across the lawn.

The one with the flute poked him, said: "You will go into front and maneuver this . . ."

"Vehicle," said the one beside Joao's father.

"Vehicle," said the one with the flute.

"Hospital?" Joao pleaded.

"Hospital," agreed the one with the flute.

Joao looked once more to his father. The other Indian already was strapping the elder Martinho to the bench in preparation for movement. How competent the man appeared in spite of his backwoods look.

"Obey," said the one with the flute.

Joao opened the door into the front compartment, slipped through, feeling the other one follow. A few drops of rain spattered darkly against the curved windshield. Joao squeezed into the operator's seat, noted how the Indian crouched behind him, flute pointed and ready.

A dark gun of some kind, Joao guessed.

He punched the igniter button on the dash, strapped himself in while waiting for the turbines to build up speed. The Indian still crouched behind him, vulnerable now if the airtruck were spun sharply. Joao flicked the communications switch on the lower left corner of the dash, looked into the tiny screen there giving him a view of the lab compartment. The rear doors were open. He closed them by hydraulic remote. His father was securely strapped to the bench now, Joao noted, but the other Indian was equally secured.

The turbines reached their whining peak. Joao switched on the lights, engaged the hydrostatic drive. The truck lifted six inches, angled upward as Joao increased pump displacement. He turned left onto the street, lifted another two meters to increase speed, headed toward the lights of a boulevard.

The Indian spoke beside his

ear: "You will turn toward the mountain over there." A hand came forward, pointing to the right.

The Alejandro Clinic is there in the foothills, Joao thought.

He made the indicated turn down a cross street angling toward the boulevard.

Casually, he gave pump displacement another boost, lifted another meter and increased speed once more. In the same motion, he switched on the intercom to the rear compartment, tuned for the spare amplifier and pick-up in the compartment beneath the bench where his father lay.

The pickup, capable of making a dropped pin sound like a cannon, gave forth only a distant hissing and rasping. Joao increased amplification. The instrument should have been transmitting the old man's heartbeats now, sending a noticeable drum-thump into the forward cabin.

There was nothing.

Tears blurred Joao's eyes, and he shook his head to clear them.

My father is dead, he thought. *Killed by these crazy backwoods-men.*

HE noted in the dash screen that the Indian back there had a hand under the elder Martinho's back. The Indian appeared to be massaging the dead man's back, and a rhythmic rasping matched the motion.

Anger filled Joao. He felt like diving the airtruck into an abutment, dying himself to kill these crazy men.

They were approaching the outskirts of the city, and ring-girders circled off to the left giving access to the boulevard. This was an area of small gardens and cottages protected by over-fly canopies.

Joao lifted the airtruck above the canopies, headed toward the boulevard.

To the clinic, yes, he thought. *But it is too late.*

In that instant, he realized there were no heartbeats at all coming from that rear compartment—only that slow, rhythmic grating, a faint susuration and a cicada-like hum up and down scale.

"To the mountains, there," said the Indian behind him.

Again, the hand came forward to point off to the right.

Joao, with that hand close to his eyes and illuminated by the dash, saw the scale-like parts of a finger shift position slightly. In that shift, he recognized the scale-shapes by their claw fringes.

The beetles!

The finger was composed of linked beetles working in unison!

Joao turned, stared into the Indian's eyes, seeing now why they glistened so: they were composed of thousands of tiny facets.

"Hospital, there," the creature beside him said, pointing.

Joao turned back to the controls, fighting to keep from losing composure. They were not Indians . . . they weren't even human. They were insects—some kind of hive-cluster shaped and organized to mimic a man.

The implications of this discovery raced through his mind. How did they support their weight? How did they feed and breathe?

How did they speak?

Everything had to be subordinated to the urgency of getting this information and proof of it back to one of the big labs where the facts could be explored.

Even the death of his father could not be considered now. He had to capture one of these things, get out with it.

He reached overhead, flicked on the command transmitter, set its beacon for a homing call. *Let some of my Irmaos be awake and monitoring their sets*, he prayed.

"More to the right," said the creature behind him.

Again, Joao corrected course.

The moon was high overhead now, illuminating a line of bandeirante towers off to the left. The first barrier.

They would be out of the green area soon and into the grey—then, beyond that, another barrier and the great red that stretched out in reaching fingers through the Goyaz and the Mato

Grosso. Joao could see scattered lights of Resettlement Plan farms ahead, and darkness beyond.

The airtruck was going faster than he wanted, but Joao dared not slow it. They might become suspicious.

"You must go higher," said the creature behind him.

Joao increased pump displacement, raised the nose. He levelled off at three hundred meters.

MORE bandeirante towers loomed ahead, spaced at closer intervals. Joao picked up the barrier signals on his meters, looked back at the *Indian*. The dissembler vibrations seemed not to affect the creature.

Joao looked out his side window and down. No one would challenge him, he knew. This was a bandeirante airtruck headed *into* the red zone . . . and with its transmitter sending out a homing call. The men down there would assume he was a band leader headed out on a contract after a successful bid—and calling his men to him for the job ahead.

He could see the moon-silvered snake of the Sao Francisco winding off to his left, and the lesser waterways like threads unravelled out of the foothills.

I must find the nest—where we're headed, Joao thought. He wondered if he dared turn on his receiver—but if his men started

reporting in . . . No. That could make the creatures suspect; they might take violent counter-action.

My men will realize something is wrong when I don't answer, he thought. They will follow.

If any of them hear my call.

Hours droned past.

Nothing but moonlighted jungle sped beneath them now, and the moon was low on the horizon, near setting. This was the deep red region where broadcast poisons had been used at first with disastrous results. This was where the wild mutations had originated. It was here that Rhin Kelly had been reported missing.

This was the region being saved for the final assault, using a mobile barrier line when that line could be made short enough.

Joao armed the emergency charge that would separate the front and rear compartments of the truck when he fired it. The stub wings of the front compartment and its emergency rocket motors could get him back into bandeirante country.

With the *specimen* sitting behind him safely subdued, Joao hoped.

He looked up through the canopy, scanned the horizon as far as he could. Was that moonlight glistening on a truck far back to the right? He couldn't be sure.

"How much farther?" Joao asked.

"Ahead," the creature rasped.

Now that he was alert for it, Joao heard the modulated stridulation beneath that voice.

"But how long?" Joao asked. "My father . . ."

"Hospital for . . . the father . . . ahead," said the creature.

It would be dawn soon, Joao realized. He could see the first false line of light along the horizon behind. This night had passed so swiftly. Joao wondered if these creatures had injected some time-distorting drug into him without his knowing. He thought not. He was maintaining himself in the necessities of the moment. There was no time for fatigue or boredom when he had to record every landmark half-visible in the night, sense everything there was to sense about these creatures with him.

How did they coordinate all those separate parts?

They appeared conscious. Was that mimicry, too? What did they use for a brain?

DAWN came, revealing the plateau of the Mato Grosso. Joao looked out his windows. This region, he knew, stretched across five degrees of latitude and six degrees of longitude. Once, it has been a region of isolated *fazendas* farmed by independent blacks and by *sertanistos* chained to the *encomendero* plantation system. It was hard-

wood jungles, narrow rivers with banks overgrown by lush trees and ferns, savannahs and tangled life.

Even in this age it remained primitive, a fact blamed largely on insects and disease. It was one of the last strongholds of *teeming* insect life, if the International Ecological Organization's reports could be believed.

Supplies for the bandeirantes making the assault on this insect stronghold would come by way of Sao Paulo, by air and by transport on the multi-decked highways, then on antique diesel trains to Itapira, on river runners to Bahus and by airtruck to Registo and Leopoldina on the Araguaya.

This area crawled with insects: wire worms in the roots of the savannahs, grubs digging in the moist black earth, hopping beetles, dart-like angita wasps, chalcis flies, chiggers, sphecidae, braconidae, fierce hornets, white termites, hemipteric crawlers, blood roaches, thrips, ants, lice, mosquitoes, mites, moths, exotic butterflies, mantidae—and countless unnatural mutations of them all.

This would be an expensive fight—unless it were stopped . . . because it already had been lost.

I mustn't think that way, Joao told himself. Out of respect for my father.

Maps of the IEO showed this region in varied intensities of red. Around the red ran a ring of grey with pink shading where one or two persistent forms of insect life resisted man's poisons, jelly flames, astringents, sonitoxics—the combination of flamant couroq and supersonics that drove insects from their hiding places into waiting death—and all the mechanical traps and lures in the bandeirante arsenal.

A grid map would be placed over this area and each thousand-acre square offered for bid to the independent bands to deinfest.

We bandeirantes are a kind of ultimate predator, Joao thought. It's no wonder these creatures mimic us.

But how good, really, was the mimicry? he asked himself. And how deadly to the predators?

"There," said the creature behind him, and the multi-part hand came forward to point toward a black scarp visible ahead in the grey light of morning.

Joao's foot kicked a trigger on the floor releasing a great cloud of orange dye-fog beneath the truck to mark the ground and forest for a mile around under this spot. As he kicked the trigger, Joao began counting down the five-second delay to the firing of the separation charge.

It came in a roaring blast that Joao knew would smear the creature behind him against the rear

bulkhead. He sent the stub wings out, fed power to the rocket motors and back hard around. He saw the detached rear compartment settling slowly earthward above the dye cloud, its fall cushioned as the pumps of the hydrostatic drive automatically compensated.

I will come back, father, Joao thought. You will be buried among family and friends.

He locked the controls, twisted in the seat to see what had happened to his captive.

A gasp escaped Joao's lips.

THE rear bulkhead crawled with insects clustered around something white and pulsing. The mud-grey shirt and trousers were torn, but insects already were repairing it, spinning out fibers that meshed and sealed on contact. There was a yellow sac-like extrusion near the pulsing white, and a dark brown skeleton with familiar articulation.

It looked like a human skeleton—but chitinous.

Before his eyes, the thing was reassembling itself, the long, furry antennae burrowing into the structure and interlocking.

The flute-weapon was not visible, and the thing's leather pouch had been thrown into a rear corner, but its eyes were in place in their brown sockets, staring at him. The mouth was reforming.

The yellow sac contracted, and

a voice issued from the half-formed mouth.

"You must listen," it rasped.

Joao gulped, whirled back to the controls, unlocked them and sent the cab into a wild, spinning turn.

A high-pitched rattling buzz sounded behind him. The noise seemed to pick up every bone in his body and shake it. Something crawled on his neck. He slapped at it, felt it squash.

All Joao could think of was escape. He stared frantically out at the earth beneath, seeing a blotch of white in a savannah off to his right and, in the same instant, recognizing another airtruck banking beside him, the insignia of his own Irmandades band bright on its side.

The white blotch in the savannah was resolving itself into a cluster of tents with an IEO orange and green banner flying beside them.

Joao dove for the tents, praying the other airtruck would follow.

Something stung his cheek. They were in his hair—biting, stinging. He stabbed the braking rockets, aimed for open ground about fifty meters from the tents. Insects were all over the inside of the glass now, blocking his vision. Joao said a silent prayer, hauled back on the control arm, felt the cab mush out, touch ground, skidding and slewing

across the savannah. He kicked the canopy release before the cab stopped, broke the seal on his safety harness and launched himself up and out to land sprawling in grass.

He rolled through the grass, feeling the insect bites like fire over every exposed part of his body. Hands grabbed him and he felt a jelly hood splash across his face to protect it. A voice he recognized as Thome of his own band said: "This way, Johnny! Run!" They ran.

He heard a spraygun fire: "Whooosh!"

And again.

And again.

Arms lifted him and he felt a leap.

They landed in a heap and a voice said: "Mother of God! Would you look at that!"

Joao clawed the jelly hood from his face, sat up to stare across the savannah. The grass seethed and boiled with insects around the uptilted cab and the airtruck that had landed beside it.

Joao looked around him, counted seven of his Irmaos with Thome, his chief sprayman, in command.

Beyond them clustered five other people, a red-haired woman slightly in front, half turned to look at the savannah and at him. He recognized the woman immediately: Dr. Rhin Kelly of the

IEO. When they had met in the A' Chigua nightclub in Bahia, she had seemed exotic and desirable to Joao. Now, she wore a field uniform instead of gown and jewels, and her eyes held no invitation at all.

"I see a certain poetic justice in this . . . traitors," she said.

JOAO lifted himself to his feet, took a cloth proffered by one of his men, wiped off the last of the jelly. He felt hands brushing him, clearing dead insects off his coveralls. The pain of his skin was receding under the medicant jelly, and now he found himself dominated by puzzled questioning as he recognized the mood of the IEO personnel.

They were furious and it was directed at him . . . and at his fellow Irmandades.

Joao studied the woman, noting how her green eyes glared at him, the pink flush to her skin.

"Dr. Kelly?" Joao said.

"If it isn't Joao Martinho, jefe of the Irmandades," she said, "the traitor of the Piratininga."

"They are crazy, that is the only thing, I think," said Thome.

"Your pets turned on you, didn't they?" she demanded. "And wasn't that inevitable?"

"Would you be so kind as to explain," Joao said.

"I don't need to explain," she said. "Let your friends out there explain." She pointed toward the

rim of jungle beyond the savannah.

Joao looked where she pointed, saw a line of men in bandeirante white standing untouched amidst the leaping, boiling insects in the jungle shadow. He took a pair of binoculars from around the neck of one of his men, focused on the figures. Knowing what to look for made the identification easy.

"Tommy," Joao said.

His chief sprayman, Thome, bent close, rubbing at an insect sting on his swarthy cheek.

In a low voice, Joao explained what the figures at the jungle edge were.

"Aieee," Thome said.

An Irnandade on Joao's left crossed himself.

"What was it we leaped across coming in here?" Joao asked.

"A ditch," Thome said. "It seems to be filled with couroq jelly . . . an insect barrier of some kind."

Joao nodded. He began to have unpleasant suspicions about their position here. He looked at Rhin Kelly. "Dr. Kelly, where are the rest of your people? Surely there are more than five in an IEO field crew."

Her lips compressed, but she remained silent.

"So?" Joao glanced around at the tents, seeing their weathered condition. "And where is your equipment, your trucks and lab huts and jitneys?"

"Funny thing you should ask," she said, but there was uncertainty atop the sneering quality of her voice. "About a kilometer into the trees over there . . ." She nodded to her left. ". . . is a wrecked jungle truck containing most of our . . . equipment, as you call it. The track spools of our truck were eaten away by acid."

"Acid?"

"It smelled like oxalic," said one of her companions, a blonde Nordic with a scar beneath his right eye.

"Start from the beginning," Joao said.

"We were cut off here almost six weeks ago," said the blond man. "Something got our radio, our truck—they looked like giant chiggers and they can shoot an acid spray about fifteen meters."

"There's a glass case containing three dead specimens in my lab tent," said Dr. Kelly.

Joao pursed his lips, thinking. "So?"

"I heard part of what you were telling your men there," she said. "Do you expect us to believe that?"

"It is of no importance to me what you believe," Joao said. "How did you get here?"

"We fought our way in here from the truck using *caramuru* cold-fire spray," said the blond man. "We dragged along what supplies we could, dug a trench

around our perimeter, poured in the couroq powder, added the jell compound and topped it off with all our *copahu* oil . . . and here we sat."

"How many of you?" Joao asked.

"There were fourteen of us," said the man.

JOAO rubbed the back of his neck where the insect stings were again beginning to burn. He glanced around at his men, assessing their condition and equipment, counted four spray rifles, saw the men carried spare charge cylinders on slings around their necks.

"The airtruck will take us," he said. "We had better get out of here."

Dr. Kelly looked out to the savannah, said: "I think it has been too late for that since a few seconds after you landed, bandeirante. I think in a day or so there'll be a few less traitors around. You're caught in your own trap."

Joao whirled to stare at the airtruck, barked: "Tommy! Vince! Get . . ." He broke off as the airtruck sagged to its left.

"It's only fair to warn you," said Dr. Kelly, "to stay away from the edge of the ditch unless you first spray the opposite side. They can shoot a stream of acid at least fifteen meters . . . and as you can see . . ." She nodded to-

ward the airtruck. ". . . the acid eats metal."

"You're insane," Joao said. "Why didn't you warn us immediately?"

"Warn you?"

Her blonde companion said: "Rhin, perhaps we . . ."

"Be quiet, Hogar," she said, and turned back to Joao. "We lost nine men to your playmates." She looked at the small band of Irmandades. "Our lives are little enough to pay now for the extinction of eight of you . . . traitors."

"You *are* insane," Joao said.

"Stop playing innocent, bandeirante," she said. "We have seen your companions out there. We have seen the new playmates you bred . . . and we understand that you were too greedy; now your game has gotten out of hand."

"You've not seen my Irmaos doing these things," Joao said. He looked at Thome. "Tommy, keep an eye on these insane ones." He lifted the spray rifle from one of his men, took the man's spare charges, indicated the other three armed men. "You—come with me."

"Johnny, what do you do?" Thome asked.

"Salvage the supplies from the truck," Joao said. He walked toward the ditch nearest the airtruck, laid down a hard mist of foamal beyond the ditch, beck-

oned the others to follow and leaped the ditch.

LITTLE more than an hour later, with all of them acid burned—two seriously—the Irmandades retreated back across the ditch. They had salvaged less than a fourth of the equipment in the truck, and this did not include a transmitter.

"It is evident the little devils went first for the communications equipment," Thome said. "How could they tell?"

Joao said: "I do not want to guess." He broke open a first aid box, began treating his men. One had a cheek and shoulder badly splashed with acid. Another was losing flesh off his back.

Dr. Kelly came up, helped him treat the men, but refused to speak, even to answering the simplest question.

Finally, Joao touched up a spot on his own arm, neutralizing the acid and covering the burn with fleshtape. He gritted his teeth against the pain, stared at Rhin Kelly. "Where are these chigua you found?"

"Go find them yourself!" she snapped.

"You are a blind, unprincipled megalomaniac," Joao said, speaking in an even voice. "Do not push me too far."

Her face went pale and the green eyes blazed.

Joao grabbed her arm, hauled

her roughly toward the tents. "Show me these chigua!"

She jerked free of him, threw back her red hair, stared at him defiantly. Joao faced her, looked her up and down with a calculating slowness.

"Go ahead, do violence to me," she said. "I'm sure I couldn't stop you."

"You act like a woman who wants . . . needs violence," Joao said. "Would you like me to turn you over to my men? They're a little tired of your raving."

Her face flamed. "You would not dare!"

"Don't be so melodramatic," he said. "I wouldn't give you the pleasure."

"You insolent . . . you . . ."

Joao showed her a wolfish grin, said: "Nothing you say will make me turn you over to my men!"

"Johnny."

It was Thome calling.

Joao turned, saw Thome talking to the nordic IEO man who had volunteered information. What had she called him? Hogar.

Thome beckoned.

Joao crossed to the pair, bent close as Thome signaled secrecy.

"The gentleman here says the female doctor was bitten by an insect that got past their barrier's fumes."

"Two weeks ago," Hogar whispered.

"She has not been the same since," Thome said. "We humor her, jefe, no?"

Joao wet his lips with his tongue. He felt suddenly dizzy and too warm.

"The insect that bit her was similar to the ones that were on you," Hogar said, and his voice sounded apologetic.

They are making fun of me! Joao thought.

"I give the orders here!" he snapped.

"Y-, jefe," Thome said. "But you . . ."

"What difference does it make who gives the orders?"

It was Dr. Kelly close behind him.

Joao turned, glared at her. How hateful she looked . . . in spite of her beauty.

"What's the difference?" she demanded. "We'll all be dead in a few days anyway." She stared out across the savannah. "More of your friends have arrived."

JOAO looked to the forest shadow, saw more human-like figures arriving. They appeared familiar and he wondered what it was—something at the edge of his mind, but his head hurt. Then he realized they looked like sertao Indians, like the pair who had lured him here. There were at least a hundred of them, apparently identical in every visible respect.

More were arriving by the second.

Each of them carried a gena flute.

There was something about the flutes that Joao felt he should remember.

Another figure came advancing through the *Indians*, a thin man in a black suit, his hair shiny silver in the sunlight.

"Father!" Joao gasped.

I'm sick, he thought. *I must be delirious.*

"That looks like the Prefect," Thome said. "Is it not so, Ramon?"

The Irmandade he addressed said: "If it is not the Prefect, it is his twin. Here, Johnny. Look with the glasses."

Joao took the glasses, focused on the figure advancing toward them through the grass. The glasses felt so heavy. They trembled in his hands and the figure coming toward them was blurred.

"I cannot see!" Joao muttered and he almost dropped the glasses.

A hand steadied him, and he realized he was reeling.

In an instant of clarity, he saw that the line of Indians had raised their flutes, pointing the IEO camp. That buzzing-rasping that had shaken his bones in the airtruck cab filled the universe around him. He saw his companions begin to fall.

In the instant before his world went blank, Joao heard his father's voice calling strongly: "Joao! Do not resist! Put down your weapons!"

The trampled grassy earth of the campsite, Joao saw, was coming up to meet his face.

It cannot be my father, Joao thought. My father is dead and they've copied him . . . mimicry, nothing more.

Darkness.

There was a dream of being carried, a dream of tears and shouting, a dream of violent protests and defiance and rejection.

He awoke to yellow-orange light and the figure who could not be his father bending over him, thrusting a hand out, saying: "Then examine my hand if you don't believe!"

But Joao's attention was on a face behind his father. It was a giant face, baleful in the strange light, its eyes brilliant and glaring with pupils within pupils. The face turned, and Joao saw it was no more than two centimeters thick. Again, it turned, and the eyes focused on Joao's feet.

Joao forced himself to look down, began trembling violently as he saw he was half enveloped in a foaming green cocoon, that his skin shared some of the same tone.

"Examine my hand!" ordered the old-man figure beside him.

"He has been dreaming." It

was a resonant voice that boomed all around him, seemingly coming from beneath the giant face. "He has been dreaming," the voice repeated. "He is not quite awake."

With an abrupt, violent motion, Joao reached out, clutched the proffered hand.

It felt warm . . . human.

For no reason he could explain, tears came to Joao's eyes.

"Am I dreaming?" he whispered. He shook his head to clear away the tears.

"Joao, my son," said his father's voice.

Joao looked up at the familiar face. It *was* his father and no mistake. "But . . . your heart," Joao said.

"My pump," the old man said. "Look." And he pulled his hand away, turned to display where the back of his black suit had been cut away, its edges held by some gummy substance, and a pulsing surface of oily yellow between those cut edges.

Joao saw the hair-fine scale lines, the multiple shapes, and he recoiled.

So it was a copy, another of their tricks.

THE old man turned back to face him. "The old pump failed and they gave me a new one," he said. "It shares my blood and lives off me and it'll give me a few more years. What

do you think our bright IEO specialists will say about the *usefulness* of that?"

"Is it really you?" Joao debanded.

"All except the pump," said the old man. "They had to give you and some of the others a whole new blood system because of all the corrosive poison that got into you."

Joao lifted his hands, stared at them.

"They know medical tricks we haven't even dreamed about," the old man said. "I haven't been this excited since I was a boy. I can hardly wait to get back and . . . Joao! What is it?"

Joao was thrusting himself up, glaring at the old man. "We're not human any more if . . . We're not human!"

"Be still, son!" the old man ordered.

"If this is true," Joao protested, "they're in control." He nodded toward the giant face behind his father. "They'll *rule* us!"

He sank back, gasping. "We'll be their slaves."

"Foolishness," rumbled the drum voice.

Joao looked at the giant face, growing aware of the fluorescent insects above it, seeing that the insects clung to the ceiling of a cave, noting finally a patch of night sky and stars where the fluorescent insects ended.

"What is a slave?" rumbled the voice.

Joao looked beneath the face where the voice originated, saw a white mass about four meters across, a pulsing yellow sac protruding from it, insects crawling over it, into fissures along its surface, back to the ground beneath. The face appeared to be held up from that white mass by dozens of round stalks, their scaled surfaces betraying their nature.

"Your attention is drawn to our way of answering your threat to us," rumbled the voice, and Joao saw that the sound issued from the pulsing yellow sac. "This is our brain. It is vulnerable, very vulnerable, weak, yet strong . . . just as your brain. Now, tell me what is a slave?"

Joao fought down a shiver of revulsion, said: "I'm a slave now; I'm in bondage to you."

"Not true," rumbled the voice. "A slave is one who must produce wealth for another, and there is only one true wealth in all the universe—living time. Are we slaves because we have given your father more time to live?"

JOAO looked up to the giant, glittering eyes, thought he detected amusement there.

"The lives of all those with you have been spared or extended as well," drummed the voice.

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"That makes us your slaves, does it not?"

"What do you take in return?"

"Ah, hah!" the voice fairly barked. "Quid pro quo! You are, indeed, our slaves as well. We are tied to each other by a bond of mutual slavery that cannot be broken—never could be."

"It is very simple once you understand it," Joao's father said.

"Understand what?"

"Some of our kind once lived in greenhouses and their cells remembered the experience," rumbled the voice. "You know about greenhouses, of course?" It turned to look out at the cave mouth where dawn was beginning to touch the world with grey. "That out there, that is a greenhouse, too." Again, it looked down at Joao, the giant eyes glaring. "To sustain life, a greenhouse must achieve a delicate balance—enough of this chemical, enough of that one, another substance available when needed. What is poison one day can be sweet food the next."

"What's all this to do with slavery?" Joao demanded.

"Life has developed over millions of years in this greenhouse we call Earth," the voice rumbled. "Sometimes it developed in the poison excrement of other life . . . and then that poison became necessary to it. Without a substance produced by the wireworm, that savannah grass out

there would die ... in time. Without substances produced by ... insects, your kind of life would die. Sometimes, just a faint trace of the substance is needed, such as the special copper compound produced by the arachnids. Sometimes, the substance must subtly change each time before it can be used by a life form at the end of the chain. The more different forms of life there are, the more life the greenhouse can support. This is the lesson of the greenhouse. The successful greenhouse must grow many times many forms of life. The more forms of life it has, the healthier it is."

"You're saying we have to stop killing insects," Joao said. "You're saying we have to let you take over."

"We say you must stop killing yourselves," rumbled the voice. "Already, the Chinese are ... I believe you would call it: *rein-festing* their land. Perhaps they will be in time, perhaps not. Here, it is not too late. There ... they were fast and thorough ... and they may need help."

"You ... give us no proof," Joao said.

"There will be time for proof, later," said the voice. "Now, join your woman friend outside; let the sun work on your skin and the chlorophyll in your blood, and when you come back, tell me if the sun is your slave."

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How to tell the carbon copy from the original?
Always a problem . . . but especially so in war
. . . Sometimes the only solution is to . . .

Be Yourself

By ROBERT ROHRER

MAXWELL propped himself up on one elbow in his bunk and looked at Himself in the cell across the hall. Himself was sitting rather stiffly in the single fabricated-nylon chair allowed each prisoner. Himself was gazing at the ceiling with a pale, faraway look.

Maxwell grimaced and snorted. *Damn it, why can't they tell? I know that's not me, that phony expression on his face, the phony way he pulls at his ear lobes—damn it, it's obvious!*

But it wasn't obvious, and Maxwell knew underneath his contempt that it wasn't obvious. He knew, too, that he was in a bad situation. He turned to the wall again and tried unsuccessfully to smother the nervous fire that was burning around the perimeter of his chest.

Suddenly in rapid succession a buzz, a high whoop, and a

thunderclap shot down the hall from the Interrogation Room. Maxwell had heard the sounds many times before, but still he started up in the bunk and then rose completely to his feet. *Why in God's name don't they close that door?* he thought. *They could at least have the decency to do that.*

He paced back and forth in the cell. Every time he came near the bars, he looked at Himself and scowled.

At least the damned Brgil "Rubber-Stamps" hadn't gotten control of Command. The two MP's who always brought Maxwell his food had told Maxwell that the Earth forces not only had caught all the enemy infiltrators before the vital Command divisions could be captured, but also had made a massive, successful attack on the Brgil fleet. That was good.

But it wasn't good to be in this cell, waiting to be interrogated and perhaps executed by his own commanders-in-chief. Maxwell wondered if Howie Hopkins was asking the questions. Probably. Howie should know Maxwell, the real Maxwell—but he wouldn't, of course.

The doubles didn't come back after being taken out for interrogation, so Maxwell didn't know whether the "Rubber-Stamps" or his men were being executed. Not that he would have been able to tell about them anyway. He had the inside dope on his own case, but not on the others'. The other pairs all looked and acted just like the friends he had known all of his years in the Command. It was infuriating. It was—

Impossible. Maxwell put his face against the bars and called to Himself. "Why don't you tell them?" he shouted. "You know who I am!" No, that wasn't right. The eraser unit in Himself's brain would have automatically blotted out the Brgll memory-stream when Himself had been captured, to circumvent any drug-induced revelations under questioning. As far as the "Rubber-Stamp" knew now, *he* was Colonel Richard F. Maxwell.

Maxwell ran a hand through his hair and smirked. For all he knew, *he* might be the Brgll. He

began to laugh, and then he ruthlessly forced the release valve shut and scowled. None of that. Wait until it was finished, one way or the other, and then laugh.

Maxwell was not exactly sure how the interrogation would proceed. He had heard that even Brgll scientists could not tell a "rubber-stamped" Brgll from a human being without performing an always-fatal brain probe on both subjects. Maxwell wondered what approach his—inquisitors would take.

Buzz - whoop - thunderclap. They'd made up their minds in a hurry on that one. Now it was Maxwell's turn. He heard the two MP's shuffling down the hall. They moved into the rectangle of Maxwell's cell door; one of them unlocked Maxwell's door, the other one unlocked Himself's.

AS his MP snapped on the manacles, Maxwell heard Himself joking with the other guard across the hall. Maxwell didn't feel like joking. He felt like hell.

"Ready?" said the MP.

"Like hell I am," said Maxwell, echoing his thoughts. Immediately he felt he shouldn't have said that, but the MP chuckled.

"Let's go," the MP said.

The four moved up the long floor between the open, empty

cells, toward a small iron door in the wall at the end of the hall.

Maxwell's MP moved ahead and pulled the iron door open. He said, "Inside, Jack," and guided Maxwell through the doorway into the interrogation room. Maxwell didn't like being called Jack by a lousy corporal. What kind of a corporal did he think he was, anyway?

The door clanged open all the way behind Maxwell, and the MP's began removing Maxwell's and Himself's manacles. Maxwell looked around the interrogation room without moving his head. It was a big place. There was black iron panelling on the walls—tungsten from Uranus. They could have found something better to do with so much tungsten. The ceiling was high; there was a permanent, slightly raised platform in the middle of the floor. There was a long desk with five men sitting behind it on the platform.

Two of the men were in civilian clothing, three were in uniform. Howard Henry Hopkins, Commander-in-Chief of the Third Earthfleet, sat at the center of the row. Maxwell saw that each interrogator had a monitor screen lying on the surface of the desk before him.

The MP's finished with the manacles, snapped to attention beside Maxwell and Himself, and saluted the brass.

"At ease," said Howie Hopkins. Then Howie Hopkins looked at Maxwell and Himself with two penetrating brown eyes. "One of you is a phony," said Howie Hopkins. "We're going to find out which one of you is the phony, the fake. I have here in my hand," he picked up a thin sheaf of papers and waved it gently in the air, "I have here in my hand a copy of the Central Government's file on Colonel Richard F. Maxwell. This file lists all the intimate information about Colonel Richard F. Maxwell, taken from his brain by the Finletter Transfer Process; details of his past life, the names of his friends—and his personal habits and mannerisms.

"Now, the one of you who's a phony knows all about Richard Maxwell's biography, about his friends; but habits and mannerisms are another thig. Only one of you knows all about Richard Maxwell's habits. These two psychologists, these two generals, and I are going to compare your performances of these habits to the descriptions on these sheets. You will do everything we say without question. Just be yourselves. Gentlemen?"

One of the civilians said, "Look at your fingernails."

Maxwell made a wry expression with his mouth and held up his hands palms down and looked at his fingernails. There

was something peculiar—Oh, hell, that wasn't the way he usually looked at his fingernails. Quickly he turned his hands around and curled his fingers against his palms, and *then* looked at the fingernails. He glanced at Himself. Himself was doing it the right way, and had done it without hesitation; Maxwell had caught the "Rubber-Stamp's" quick, sure arm-movement from the corner of his eye.

The interrogators scribbled on their papers. *You blew that one, Maxwell. Watch it, man. Think!*

"Tie your shoes," said the other civvy.

A pair of shoes dropped from the ceiling to the floor before Maxwell. Maxwell sat on the floor and put the shoes on over the plastic prison socks he was wearing. Then he tried to tie the laces. Maxwell was very nervous. He reversed the positions of the ends of the laces several times before he finally found the right way and started tying—and then he made a mess of the knot on the first try. The Brgll "Rubber-Stamp" rose a full twenty seconds before Maxwell did. *Damn, damn, damn!* Maxwell's heart was pounding, and he had begun to perspire. This wasn't as simple as it had sounded.

The interrogators scribbled again. "Take off your shoes," said Howie Hopkins.

Maxwell forgot for an instant

that he wasn't wearing the slip-on, slip-off boots of the space force, and he tried to pull one shoe off without undoing the knot first. He cursed and pulled the laces loose and threw the shoes to the floor. He couldn't *think*. He was scared, and that made him get confused.

Himself had carefully untied the laces first, of course. It was then, and only then, that Maxwell began to get an inkling of what he was up against. *"Only one of you knows all about Richard Maxwell's habits."* But that had to be *wrong*, the Brgll must have been drilled in Maxwell's entire pattern of behavior, and drilled well. Maxwell was up against someone who knew him better than *he* did. *Dammit, Howie, can't you see that? Hasn't your damned Intelligence told you that?*

Evidently not. As far as Maxwell knew, no Brgll scientific files had been raided during the war, so his interrogators couldn't possibly know anything beyond the basic, hearsay facts. Only the man on the floor could know. He, Maxwell, was the man on the floor. He, Maxwell, was the only human being in the room who knew that the "Rubber-Stamp" was better at being Richard Maxwell than Richard Maxwell was.

"Comb your hair," said one of the brass. A comb fell to the

floor in front of Maxwell, and a mirror descended from the ceiling.

Maxwell began to feel a little better as he slapped his black hair into place. He still knew how to use a comb, anyway.

"Brush your teeth."

Brush your teeth? Where—The floor snapped out from under Maxwell; he fell and bounced from the net, and a white tile floor slid directly beneath his feet as he rose. There was a sink set in the tile, with a tube of toothpaste and a toothbrush on it. *Well, at least I know how to brush my teeth.* At the sink Maxwell turned on the water.

He leaned over the running faucet for a full half-minute before he could remember which hand he held his brush in.

The tile floor finally elevated him back to the main level. He looked at Himself. Himself was smiling confidently, showing as many of his teeth as he could. Maxwell thought something obscene. He was frightened again, very frightened. He definitely did not want to be executed, but even Howie Hopkins was looking at him with an unmistakable expression. *Howie, blast it, I've known you—years—*

"The next test is self-explanatory," said Howie Hopkins. "It will be checked by a sensitized electronic brain. You have ten minutes."

AGAIN the floor zipped away from Maxwell, and he bounced, and another floor moved out under him. This floor had deep carpeting on it. There was a bed only a couple of feet from Maxwell. There was a girl on the bed. The girl wasn't wearing much. She looked up at Maxwell appealingly, and wriggled down into the mattress.

Maxwell swallowed. He sat down on the edge of the bed—

And that was as far as he got. He was just too damned scared to feel like making love. For ten minutes he sat there, feeling his vitals churn in the nervous reaction to fear—and feeling more than a little humiliated, too. He had flunked one of the prime requirements for being Richard Maxwell—miserably.

Himself came up looking convincingly rumped. Maxwell looked at his interrogators and the fear burned into his stomach again, because the five were comparing notes, and Maxwell knew what that meant. *Just a minute or two left, Maxwell; hang onto it . . .*

The conference broke up, and Howie Hopkins looked at the two prisoners. "We are now in possession of the facts," said Howie Hopkins, in the stilted phraseology of the military, "and we know which of you is the phony."

Maxwell held his breath and

half-closed his eyes. *Howie, I'm your best friend . . .*

"You," said Howie Hopkins, pointing to Himself, "are the Brgll. And you are Colonel Richard F. Maxwell." He nodded toward Maxwell.

Maxwell was dumfounded. His mouth fell open, and he felt tears spring up beneath his eyelids. The Brgll was shrieking, "No! No! I'm Maxwell! Howie, can't you tell, it's *me*, Dick Maxwell, it's *me*!" The Brgll was crying, too.

Good old Howie, thought Maxwell. He said hoarsely, "How—Howie, how did you know?"

Howie Hopkins looked at Maxwell and said, "The data on Brgll rubber-stamping. We know that 'Rubber-Stamps' minds are impressed with every smallest detail of the original's character. We also know that it's a fact that no human being thinks consciously enough about his personal mannerisms to be able to perform them all with no hesitation when asked specifically to do so. And few human beings can perform the most personal oper-

ations well when under great nervous stress.

"We were testing for the double who made the most mistakes. The one who knew all about Richard Maxwell's habits, and carried them out to the letter, would *have* to be the freshly instructed and conditioned 'Rubber-Stamp'."

The Brgll was whimpering on the floor now. Maxwell took a deep breath. He felt much better. He asked, "But how'd you get access to the Brgll files?"

"We've had it all along," said Howie Hopkins. Then he said to the two MP's, "Take Colonel Maxwell to the disintegrator and strap him in."

"What!" shouted Maxwell.

Howie Hopkins' face showed surprise for an instant; then it relaxed in comprehension. "Oh," said Howie Hopkins, "we're all 'rubber-stamped' Brgll, Colonel; our *coup* succeeded everywhere but in your division. I had the guards tell both of you otherwise, to keep you in as normal a state of mind as possible for the tests, but—*we* won the battle."

THE END

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THE PLATEAU

By CHRISTOPHER ANVIL

Illustrated by ADRAGNA

EARTH was conquered. Iron-shod heels clanged in the streets of New York and Moscow.

In a one-hundred and twenty mile arc from Yinkow to Antung, along the base of the Kwantung Peninsula, the Chinese dead lay mouldering in windrows.

In the wreckage of the northern half of London, the fight dwindled away, amidst smoke and radioactive debris. South of the line of the Thames, no human moved from Portsmouth to Margate.

Earth was conquered.

At no place on the globe was there a well-equipped body of human combat troops larger than a platoon.

II.

DIONNAI Count Maivail studied the final reports of the Invasion Group commanders,

and sent for his Executive Staff Chief.

Kram Baron Angstat came in, and halted with a click of the heels and a stiff bow from the waist.

"Excellence?"

Maivail inclined his head slightly toward the reports. "I am quite satisfied. Phase Military is complete. My compliments to you, the Staff and the Group Commanders."

"I am honored, sir. I shall relay your words. On behalf of the Executive Staff, I thank you."

"We now begin Phase Industrial. Just as our initial blows came as a complete surprise, following without warning two years after their attainment of the first real interplanetary capability, so our next blows must come with the greatest shock, at that moment when they begin to feel themselves recover from the first blow."

The aliens smashed Earth. The only weapons humanity had to fight back with were strange ones: humor . . . fiction . . . a sense of smell. Christopher Anvil writes a suspenseful tale of believable invaders, the unsuspected power of Shurlok Homes, and raises the question of what science really is, anyway.

Angstat nodded his head. "Understood, Excellence."

"I need not remind the Chief of the Executive Staff that on such a planet as this, agriculture is to be considered an industry."

"It shall be so designated, Excellence."

"The centralized production of electrical power, and its transmission, is to be considered an industry."

"Understood, Excellence."

"Such miscellany as dams, bridges, ships, air and ground transportation centers, hospitals, schools, wire and wireless electromagnetic communications centers—such as these are to be considered industries."

"They shall be so treated, Excellence."

"Now that this first phase is over, I shall want a more thorough, personal report from our principal resident agent."

"He shall be sent in."

"Good. Withdraw the troops into the cleared zones and begin scanning at once."

Angstat clicked his heels and saluted.

Dionnai Count Maivail straightened in his seat and returned the salute sharply.

* * *

On the conquered Earth, from Britain to China, from the Soviet Union to the U. S., the victorious invaders began to withdraw into their strongholds.

III.

RICHARD Holden, dizzily surveying the glistening, faintly-milky surface through a pair of binoculars, then lying back to look up at the silver forms that blurred out in endless streams, branching north and west, then branching again in the far distance, and finally returning from the south, shook his head.

"How can we ever beat that?"

His companions, Philip Swanbeck, was a strongly-built man in khaki, with a single silver star at his collar.

"Can't give up," he growled. "They'll never beat us."

"Save it for the troops," said Holden. "They've already whipped us."

Swanbeck murmured, "It pays to learn from the enemy. In the second world war, there was a German pilot who had a pretty good philosophy. I don't suppose he originated it. But he put it in one sentence. Want to hear it?"

Holden stared through the binoculars at the glistening, semi-transparent surface that had resisted a direct hit by a Naomi missile with fifty-megaton warhead. "Sure. Go ahead. What's the harm?"

"Listen carefully."

"I'm listening."

"He alone is lost who gives himself up as lost."

Holden thought it over as he studied the barrier. Whatever that glistening surface was, it barred human entrance to the valley as absolutely as if it were made of armor steel a mile thick. And yet, the bright wingless aircraft passed through it as if through fog. Holden shook his head and lowered the glasses.

"He should have seen this. But I can give you the philosophy, more condensed yet."

Swanbeck was scowling as he studied the milky surface, sighted his compass, and made notes on a small pad. He glanced at Holden in surprise. "In fewer words than that?"

"Easy. Listen."

"I'm listening."

"*'I still live.'*"

Swanbeck blinked, then slowly smiled. "Yes, that's it. Exactly. Who said that?"

Holden grinned. He pulled the camera free of its case, and aimed it so that it focused directly on the place where the shining wingless aircraft passed through the barrier.

"Ever heard of John Carter?"

"The name's faintly familiar. Who's he?"

"An immortal Earthman who became Warlord of Mars."

Swanbeck looked at Holden sharply, then smiled, "—A fictional hero?"

"Who knows? We haven't explored Mars very thoroughly, you know. And *this* crew"—he nodded toward the glistening barrier "—obviously came from somewhere more distant, or we'd have seen some sign when they took off."

Swanbeck smiled. "*'I still live.'* That's pretty good." He closed his notebook. "Got the pictures?"

"Got them." Holden slid the camera carefully back into its case.

Swanbeck put his compass

away, folded up a thing like a transit, set on short legs and with angled eyepiece, and twisted open a thick tube from his pack. He pulled out a brown oval-shaped object with a spike at the bottom, glanced around, pulled loose a pin near the base of the spike, and stabbed the spike into the ground.

"Okay. Our people will see that when it goes off, and recheck our position by it. Now let's get out of here."

Carefully, they wormed their way backwards, then stumbled to their feet and ran down the hill.

IV.

DIONNAI Count Maivail nodded impersonally to resident agent Sumer Lassig.

"Yes. Your reports have been thoroughly scanned, Agent Lassig. You were quite right to recommend reduction of this folk. Your reports have been received with the highest approbation by the Supreme Determinative Council. I have, of course, myself perused them."

Lassig bowed. "I am honored, your Excellency."

"Now, however, I want to hear it first hand."

"Yes, sir." The transparent membranes slid down briefly over Lassig's eyes as he thought back, then they flicked away. "To begin with, sir, I arrived here only four

months ago, local time, to find that my predecessor had grossly neglected his duty. He was evidently a scholarly individual, not suited to the task."

Maivail nodded with interest. "What had he done? In what condition did you find him?"

"As for what he had done, he had sent back rather confused reports, suggesting at first the possession of unusual skills by the local folk. Under hard questioning from home, he confessed error, excused himself on the basis of language difficulties, and sent back innocuous reports that were duly accepted as valid, until the locals sent up that first sizable interplanetary expedition, which was, of course, picked up on the monitor. This negated the picture he had created. When I found him, he was surrounded by translations of local documents. He was muttering to himself. 'It can't all be true. But which is which? I'm going insane.' He was hopeless, sir. I shot him."

"Excellent. What about his staff?"

"It soon became evident that they too were infected. Some had taken to solacing themselves with local narcotics. The rest were even more incoherent. They blabbered about 'multiple skills,' talked about a 'ladder of achievement,' said the locals had 'nearly all the rungs, not just the upper rungs,' and so on, and to cap the

climax, they presented me with a list of things they claimed the natives had that we did not have."

Maivail looked interested. "Have you this list?"

There was a crackle of paper. "I thought you might want to see it, sir."

Maivail took it, and looked it over.

"H'm. *Humor. Chemistry. Fiction. Sense of smell—*" Maivail looked up. "What are these things?"

"On the chance that there might be some validity to this after all, I questioned the staff most carefully. Their answers were heretical gibberish. To prevent the infection from spreading to my own staff, I flash-bombed the lot of them immediately."

"Good, good. But, now—Take this first word, '*Humor.*' What's that?"

"This is a local word, sir. We have transliterated it, but cannot translate it. We have no corresponding word. According to the staff, it is a peculiar sense which causes the locals to *laugh—*"

"What?"

"Sir?"

"Laugh. What does *that* mean?"

"A spasmodic contraction of the diaphragm, coupled with reddening of the face, and choking noises."

Maivail settled back. "I see. Now, look here, Lassig. Kindly don't use one local word to define another. This could become quite difficult to follow."

"I'm sorry, sir. I'll try to avoid that. Now, this peculiar sense, this *humor*, causes the natives to choke and gag in certain situations."

"It sounds to me as if '*humor*' should translate as 'dust in the air-tubes.' Obviously, the spasmodic contractions of the diaphragm must be intended to eject the dust."

Lassig nodded. "Exactly, sir. But the staff had got off on some sidetrack, and claimed it was psychological."

"*Psychological.*"

"Yes, sir."

"M'm. Spasmodic contractions of the diaphragm. Choking. Gaggling. —And this is *psychological*?"

Lassig spread his hands. "*Their* word for it, sir. They said that someone else's sudden fright, or hurried narrow escape from danger, would often cause the locals to choke and gag."

Maivail turned it over in his mind. "What's the causal connection?"

"According to the staff, this—this '*sense of humor,*' sir."

Maivail squinted. "This explanation has a certain tinge of lunacy."

"Exactly, sir."

"What about this next item on the list, 'Chemistry'? What might that be?"

LASSIG took on the look of a man confronted with the job of lifting a large heavy object having no handle.

"Well, sir—ah—it's supposed to be a—ah—Well, a form of *Science*—"

"There is only one true Science. That is the control of *mer*, or matter-energy."

Lassig looked uneasy. "Yes, sir. Of course, you're right, sir. The staff went into this business about the ladder, and claimed that *mer*-control originally came in two parts, the control of matter, and the control of energy. *Chemistry* was the control of matter."

Maivail stared. "Why, any fool knows that matter and energy are basically the same. Matter is condensed energy. Energy is, in effect, highly rarified matter."

"Yes, sir."

"How did the staff get around that?"

"They claimed, sir, that to *attain* scientific knowledge was a very slow, laborious, and gradual thing, whereas—"

Maivail snorted. "This is fantastic. It takes exactly three years to learn the whole business."

"Yes, sir. Precisely what I said to them. But the staff argued

that there was a time, before the schools—"

"*Before the schools?*"

"Yes, sir."

"Who, then, would have taught the youth?"

"They claimed the—ah—the people of that day had to teach themselves."

"Teach themselves! But—Great merciful—See here, surely the members of the staff had seen a hydrofuser. How the devil could you *build* one, if you didn't already *have* one?"

Lassig shook his head, and said glumly, "They claimed the people on this planet were gradually working their way around to *making* one."

"*How?*"

"That I couldn't possibly hope to explain, sir."

"The basic tool in *mer*-control is the hydrofuser. And you can't *make* a hydrofuser unless you've *got* a hydrofuser. You can't construct a hydrofuser from nothing, any more than you can breed *slergs* without a parent *slerg* to start with. But when you *do* have a hydrofuser or a parent *slerg*, then it's easy."

"Yes, sir. They were far gone, sir. You couldn't talk to them."

"What about this next thing? 'Fiction.' What might that be?"

"The staff were pretty confused about that, sir. It seems that the locals—Ah—Frankly, sir, I don't know *what* fiction is.

That was what my predecessor was trying to figure out when I got there. He claimed that some of the local's reports were unreal.—No, not that, synthetic."

"Synthetic reports?" Maivail's eyes momentarily bulged. "You mean these locals *falsify their own reports?*"

Lassig blew out his breath. "That's the beauty of it. The fellow claimed it wasn't actually *falsification.*"

"Not falsification? But—If it's synthetic—"

"He claimed that the locals *knew* the reports were synthetic, so that they weren't fooled."

Maivail swallowed hard. He could feel his poise slipping away by the instant.

"Look here, Lassig. *If* the locals *know* the report is false, how does the falsifier *profit?*"

Lassig looked hopeless.

Maivail said exasperatedly. "Let's assume for the moment that I am a supply-inspector. You are, we also assume for the moment, a cheating contractor. You have delivered six and nine-tenths gluts of smollonium ore .006 fine. You contracted to deliver seven gluts .008 fine. You make out your affidavit and present it to me, labeled 'False.' Now. You know it's false. I know it's false. Where are we? What's the point?"

Lassig could find no answer.

Maivail said, "Either these lo-

cals are a very involved race of people, or the entire staff was falsifying its *own* data. And yet, who would believe them? What's the purpose? There's something peculiarly out-of-focus about this. Now, let's try just one more of these things. What might 'sense of smell' be?"

Lassig nervously rubbed his hand across his breathing-duct office.

"Well, sir—Ah—As to that—"

Maivail watched him flounder, and squinted at him coldly.—This was a man selected for his ability to absorb, evaluate, and explain alien cultures.

Despite the perfection with which the military operations had thus far gone off, Maivail could not escape the impression of something unpleasant, looming just outside the range of his vision.

V.

IN the underground command center, it was dim and quiet. The papers were spread out under the cool glow of the fluorescent lights.

"Okay," said Swanbeck, "we've finally got it, then."

Holden glanced at the composite drawing. The precise place and angle at which the stream of exiting air-craft passed out through the barrier, and the corresponding place and angle at

which the returning vehicles re-entered, were clearly shown.

Holden shook his head. "It's going to be quite a problem to get a Naomi to hit that barrier at precisely that angle. Moreover, it's got to get there at exactly the right moment, or it will catch up and collide with one of those vehicles. The Naomi's going to be moving at around eighteen thousand miles an hour, remember."

"Don't worry about that. Thanks to this lull, we're in touch with Denver again. There are half-a-dozen launchers on the way with the new-type Raquet. If Naomi can't do it—"

"Raquet has a chemical war-head."

"Not this bunch."

Holden thought it over. "You know, Phil, I just had a thought."

Swanbeck smiled. "Don't be modest. Let's hear it."

"Look, now, if this doesn't work—"

Swanbeck winced. "Then we're no worse off than we were. We'll try another approach." He turned away.

"Wait a minute," said Holden.

"There's no point worrying about *failure*, Dick. Drop it." Swanbeck started to walk away.

Holden raised his voice. "All right, but the point is, what if it *does* work?"

Swanbeck turned, frowning. "We're in."

"And *they're* warned."

Swanbeck blinked.

Holden said, "We're too busy thinking how to *make* it work, to think, what next, if it *does* work? How many chances like this are we going to get?"

"What are you thinking?"

"Half-a-dozen simultaneous *failures* wouldn't hurt us. That's just more of the same. But if we have half-a-dozen simultaneous *successes*—"

Swanbeck nodded slowly. "That's a point. We'll see if Denver can spread the word."

VI.

DIONNAI Count Maivail put down the new staff reports.

"Very good, Angstat. These are most complete. What is *your* impression of the local reaction?"

"Fast and flexible, sir. I must say that their recovery, militarily speaking, is a good deal above what we might have expected. I notice particularly that they are very careful to remain dispersed. Another noteworthy factor is their avoidance of vain effort. Following their initial abortive strikes against the cleared zones, there's been nothing but very light reconnaissance. But their organization is obviously knitting together rapidly."

"They could have been a most dangerous adversary."

Angstat nodded. "Once they

adapted sufficient of their hydro-fuser power to interplanetary, then interstellar uses, they could have been extremely dangerous. As it is, of course, their base—just one planet—is too restricted, and hence vulnerable. Their delay at achieving a broad base has cost them dear. One wonders at their reasons."

Maivail nodded thoughtfully. "I suppose we'll never know for certain. Lassig's report shows an incredible mental confusion on their part. Possibly some religion, or some 'little-planet,' mind-our-business-and-turn-our-back-on-the-galaxy philosophy was the real cause of the trouble. You remember our own back-to-nature fanatics?"

Angstat snorted. "Who could forget them? Throw away their hydrofuser, smash their correctors, go off naked to some hole somewhere, and squat by a mess of smoldering mulch eating scorched meat, with the bugs around them in clouds, and tell themselves they're *really* living. There, they say, that's what Nature *intended*. By the Great—" He caught himself, and cleared his throat. "They can *have* it. When I get pains in the knees, or an attack of galloping scrombosis, I want to be where I can get in a corrector, and no delay."

Maivail nodded. "The only reasonable interpretation of Lassig's data seems to be that this

planet is overrrun with all kinds of these back-to-nature fanatics. And, of course, our scanners have brought back actual pictures of them in action.—Incredible."

"It doesn't speak well for their general level of intelligence."

"No. It doesn't. Yet, their *military* reaction—"

Again, there was that peculiar sense of something looming, something just outside his range of vision.

Angstat cleared his throat, and straightened.

"About the beginning of Phase Industrial, Excellency?"

Maivail dropped his informality and sat straight, considering it. "Their recovery seems well started. Their hopes should once again be reviving. All reports indicate a marked recovery in surface transport and wireless electromagnetic communication. Very good. At the next turning of the watch, order the scanners in. Secure the opened lanes. Phase Industrial will begin one watch later."

Kram Baron Angstat clicked his heels and saluted.

Dionnai Count Maival sat straight, and returned the salute.

VII.

SWANBECK held the phone to his ear as he made rapid notes.

"Yes, all right . . . Okay, but we don't want any delay beyond that time. We have no way to know how long this opportunity will last . . . No, but there may be something similar to closing a gate. Otherwise, I don't see why they go in and out, all at the same places . . . Yes . . . Yes . . . Okay . . . Yes, sir. We'll do it. We'll delay again till 1630 . . . Yes, sir . . . Good-by."

Scowling, he set the phone back in its cradle, and snapped orders to a doubtful-looking colonel, who saluted and hurried out.

Holden said, "What is it this time?"

Swanbeck delivered himself of a string of profanity, "Now the Chicom aren't ready."

Holden shook his head. "This close reconnaissance isn't going to last forever. Sooner or later, they're going to pull the last of those aircraft inside and plug the holes."

"I know it. But Denver wants to hit as many as possible all at once. Damn it, the way they've got it set up, it's going to be all or nothing."

Holden smiled sourly. "Not necessarily. Somebody could jump the gun."

Swanbeck's face hardened.

Holden said, "Denver couldn't be so busy, could they, that they didn't think of this?"

"We'll find out." Swanbeck picked up the phone.

VIII.

DIONNAI Count Maivail selected a delicate-stemmed slender goblet, and contemplated the pale-violet liquid within.

"Excellent hue, Choisoiei."

Ferrard Choisoiei, Maivail's steward, dipped at the knee and bobbed his head in gratitude. "Thank you, sir."

Maivail flicked the edge of the goblet with his fingertip, and turned his head to listen.

Kram Baron Angstat smiled, as he held up his own goblet.

"Fine timbre and resonance, Your Excellency."

"It has indeed."

Choisoiei was all but overcome.

Angstat heard a silver bell chime.

"The turning of the watch, sir. The signal to return the scanners."

"Ah. Soon Phase Industrial will begin."

"Exactly sir."

Maivail raised the slender goblet.

"The success of all our plans—"

Angstat replied "—and the obstruction of all our enemies!"

They sipped the liquid.

IX.

SWANBECK put the phone back in its cradle and smiled.

"Denver has already told the Chicom there are twenty-five Na-

omi missiles with their fuses burning, just in case they doublecross us on this."

"What's the Chicom reaction?"

"Very cooperative. They've apparently had enough from the outworlders to blunt their taste for seas of blood drowning seas of flame."

"Then we're spared that." Holden glanced at his watch. "If 1630 would only hurry up."

"Not too long, now."

A young lieutenant hurried in, saw Swanbeck, and saluted.

"Sir, the Bugs have stopped sending out scouts. They're pulling the rest back in pretty fast."

Swanbeck glanced at his watch.

The lieutenant added, "What do we do? Wait for 1630?"

Swanbeck glanced at the phone, and back at the lieutenant.

Holden let his breath out in a sigh of weary disgust.

Swanbeck said roughly, "Hit them."

X.

DIONNAI Count Maivail put his neatly-booted feet on the footrest.

"Superb, Choisoiei."

He selected a pale-blue mint with little silver flecks, and settled back contentedly.

Angstat sighed, and munched delicately.

Choisoiei gratefully thanked

Maivail for the compliment, and began to clear away the remains.

Maivail and Angstat beamed upon each other. Both had the same thought, and they spoke at once.

"The perfect end to a—"

The boom started loud and grew louder fast. Their chairs rose and tipped as the floor heaved, and the wall across the room bulged toward them.

Ferrard Choisoiei threw himself between Maivail and the wall.

Maivail and Angstat sprang to their feet, their hands at the hilts of their weapons.

The wall burned through, and a white glare looked in upon them.

As it burned away exposed flesh, Maivail stood facing it, a bright white lance of destruction leaping from his weapon into the chaos.

XI.

SWANBECK lowered the glasses.

"Whew! They won't survive that."

Before them, the gleaming wall remained unbroken, but from one side reached out a huge dazzling-white plume of gas, smoke and debris, that made a roar like a rocket at lift-off.

Holden nodded. "That's the end of that bunch. But what about the others?"



"Damn it. If we'd had *time*, we could have cleaned out the three-fourths of them in reach of modern weapons-teams."

"Maybe we did—If the others reacted in time—"

"*Maybe*. Well, that's that. We've gained, even if this is the only knockout."

"Yes," said Holden. "We know, they're vulnerable. And that we aren't necessarily powerless."

He put the filter over the glasses to look briefly at the huge flaming jet. "As you expressed it. 'He alone is lost who gives himself up as lost.'"

Swanbeck nodded, and studied the enemy base.

"I still live," he said.

XII.

MAIVAIL saw flashing red and green lights. His body burned from end to end. Wrapped in flame, he spun like a whirlwind amidst a dazzling drift of stars. Then he seemed to slip, slide, the cosmos around him began to waver as if seen through water—A voice spoke and while Maivail understood it at the time, what it said slipped away, and for the moment he retained only the sense of a single comment: "The present home of your soul is again ready for you."

Dizzily, Maivail opened his eyes.

He was lying in a corrector,

the padded rubbery cushions softly supporting him. Framed in the opening above him, Angstat looked down.

Maivail swallowed.

"That was close."

"Close enough," said Angstat.

"What happened?"

"Evidently they got a hydro-fuser in through an opened lane, and then destabilized it."

Maivail considered what this meant in terms of speed and control of trajectory.

Angstat said, "The thing overpowered the secondary screens, and the excess radiation burned right through the exposed sides of the ships. We'd have been finished if a technician hadn't thought, earlier, to install an excess-radiation switch. The switch kicked over the potential-control in the energy-bank circuit. The banks reversed polarity, and absorbed enough of the excess energy so the screens could recover. The heat and pressure slowly blew out through the exit lane. The ships themselves are in terrible shape."

"Whew," said Maivail. "Keep back. I'm coming out." He hauled himself out of the corrector, and briefly considered the shape he must have been in when he was put into it. "How long was I in there?"

"Four days."

Maivail reminded himself that half-a-day would cure any or-

dinary illness, and one day would correct a severe case of overall long-term cumulative fatigue and deterioration. Two days would take care of the average victim of an explosion, provided he was not actually blown to bits. Soldiers suffering from serious wounds were in and out in less time than that. And he had been in for *four days*. He flexed his arms, bent, and straightened. He felt fine.

Angstat handed him a fresh uniform.

Maivail dressed rapidly. "How many men were we able to salvage?"

"About a third, sir." As Maivail winced, Angstat added, "I'm happy to say, sir, that your steward, Ferrard Choisoel, was among them. He acted heroically at the moment of disaster, throwing himself between you and the wall as it began to buckle inward."

Maivail nodded. "Award him the Order of the Copper Sun, with twelve rays." He glanced around. "Where are we right now?"

"Level B of the below-ground base that was under construction at the time of the attack, sir. The ships are under repair. All but three of them are holed, and every one of them has suffered severe external damage."

"Well, we can fix that." Maivail told himself that, whatever

he felt, he must bear himself unflinchingly. But he had some of the emotional sensations of a person who has taken on a bear, and lost an arm and a leg in the first exchange of blows. "What damage to the—the locals, in the past few days?"

Angstat was leading the way down the corridor. He paused to open a door freshly blazoned with the emblems of the Commander and of the Executive Staff. "—Damage to the *locals*, Excellence?"

"My orders," said Maivail, "were to commence Phase Industrial one watch following the return of the scanners."

"Unfortunately, sir, out of a total of eighteen cleared zones, each protected by a heavy screen, *six* underwent exactly the same thing that happened to us."

Maivail felt the room spin. "How severe was the damage?"

"Two-thirds to almost total."

Maivail's voice seemed to come from far away. "When I give an order, I expect it to be obeyed. Regardless of losses."

"Yes, sir."

"Why wasn't that order obeyed?"

"Because the mechanism of command was temporarily destroyed, above the level of the Invasion Group commanders. For a day-and-a-half, the entire Executive Staff was out of action. Even later on, there was delay, be-

cause the external portions of the communications equipment had been vaporized. The result was immediate cessation of the higher functions of control and coordination. The remaining group commanders found themselves unable to raise headquarters. Six of the eighteen Invasion Groups had apparently ceased to exist. At that point, no-one knew what had happened."

"Yes. Yes, I see." Maivail felt himself come back to reality. He found a door with his emblem blazoned on the outside, walked in and sat down wearily. He had a strong urge to crawl back in the corrector, but suppressed it. "What's the overall percentage of loss?"

Angstat pulled out a paper covered with figures. "Close to twenty-five percent, sir."

Maivail dizzily pictured what would happen when word of this got back to the Supreme Council.—Well, there was nothing to be done about that. He groped for something positive. "The scanner photos, map, data, and classification lists.—Did any of them survive?"

"Happily, sir, the filed data was only slightly damaged. The heat and associated stresses did create drifting instability in some of the memory banks. But we've overcome most of that."

"Ah, good.—And with that data, we can reconstitute the

models and classification lists?"

"Yes, sir. We've started work on it."

"Good. And we again have communication with the group commanders?"

"Yes, sir."

"All right. Have them fabricate new shielding generators, and set up an external screen around each screen already existing. Use a number of cleared lanes, in this new *external* screen, and block and unblock them, directing outgoing and incoming traffic to the various lanes at random. And I *mean* at random."

"Yes, sir."

"Moreover, each set of cleared lanes in the outer shell is to be changed at the end of the day, and a completely new set used the following day."

"Yes, Excellency. And shall we shift our forces to balance the strength of all the Groups?"

Maivail thought a moment, then shook his head.

"No. The full-strength groups, once they've protected themselves, will carry out Phase Industrial in their regions. The understrength groups will go back to Phase Military. When the full-strength groups finish the job in their regions, they will join the understrength groups in *their* regions, and carry out Phase Industrial, and absolutely obliterate the industrial resources of those regions."

Angstat clicked his heels and saluted. "It shall be done, Excellency."

XIII.

SWANBECK put the phone gently back in its cradle, and looked at Holden curiously.

Holden was frowning as he studied several diagrams, each showing an object somewhat like a dome partly merged into a surrounding doughnut-shaped structure. From different points on the doughnut-shaped structure, short lines projected, with a set of angles written along the lines, and with times jotted down nearby.

Swanbeck cleared his throat. Holden looked up. Swanbeck said, "They just wiped out the dummy command-post west of Centerville. And Higgins and Delahaye have been captured."

Holden winced. "How did that happen?"

"They went up by way of the ravine, and got into the observation-post early this morning. Since the trees have leafed out, actual observation from there has been worthless. They crawled out in the dark, and dug themselves a hole in a sizable clump of brush further down the hill, dragging the dirt back into the forest on shelter-halves, to get it out of sight."

"Why didn't they just dig

their hole at the edge of the forest?"

"The slope is gradual there, and there are so many small poplars out in the field that from ground-level you can't see a thing. From this clump of brush, though, they figured they'd be safe from observation from any direction, would have a good view of the barrier, and could pass the information back using a directional handset."

"What happened?"

"The Bugs have a habit of setting off flares at odd times in the night, and they have aircraft up to patrol within a mile or two of the barrier. Anything suspicious, they fire on. This clump of brush was fifty feet out from anything else you could call cover, and not wanting to be caught on their feet in the open when a flare went off, Higgins and Delahaye *crawled* back a number of times, with the dirt. When the sun came up this morning, they discovered that a lane of shiny straw was bent back where they'd crawled out dragging the dirt. It was like a fifty-foot path leading direct to where they were hidden."

Holden swore. "Then what?"

"They sent back reports till the sun reached the right angle, and some alert Bug happened to spot the bent straw. Then a troop-carrier and several floating forts came out, and heavily-armed Bugs dropped down on all

sides of them. Higgins and Delahaye were loaded down with range and direction finders, cameras, and that contraption that's supposed to see through the Barrier—"

"Did it work?"

"No." Swanbeck shook his head in disgust. "But in consequence of lugging that stuff along, all they had between them was one .45. They got off a few shots, then the Bugs had them trussed up, and threw them into the troop carrier."

Holden blew out his breath. "Higgins and Delahaye were two of our more intelligent men."

"For what it's worth, Higgins grabbed the directional handset at the last minute, and shouted 'I still live' into it. They picked it up back at the observation post. But they didn't know what had happened till Schmidt, who'd been at the edge of the forest trying to see something through all that mess of poplar leaves, got back to tell them."

Holden frowned. "That's funny. *We've* been talking about that very expression. Why did *he* use it?"

Swanbeck drummed his fingers on the table. "Did Higgins read a lot?"

"He'd get streaks where he was a terrific reader. He'd go through shelves of books like a mixing-machine through a coal vein. For a couple of fanatical

health-enthusiasts, they both had a lot of brain-power to the ounce."

"Maybe Higgins had run across that saying, and it just occurred to him as a gesture of defiance."

"Maybe."

"What makes you think it might be something more?"

"I don't know. But Higgins and Delahaye both had a fiendish sense of humor. This just seems —" Holden shook his head.

Swanbeck frowned, then finally shrugged and said dryly, "If they've got humor, they'll need it. Every bit.—Now, what do you think about the Bugs' improved Barriers?"

Holden scowled at the diagrams. "We've got a small chance of getting a missile in through one of these holes. But it isn't going to do much damage. They've obviously built a kind of antechamber. Their returning ships pass into this antechamber first, then the outer entrance is closed, and a passage is opened through the inner barrier. If we get a missile through the outer barrier, all it will hurt will be whatever happens to be in the antechamber."

"Not good enough. We almost put that outfit out of business the last time. This time we want to finish them."

"There's just a *chance*—It's slight, though."

Swanbeck's eyes came to a focus. "What are you thinking?"

"You're familiar with the idea of 'limpet mines'?"

XIV.

DIONNAI Count Maivail studied the latest reports with the grim satisfied look of a champion boxer who has been knocked flat by an upstart, and who has spent the following rounds lambasting the challenger all over the ring. The military reports were splendid. Maivail scowled, however, at some lengthy items at the end of an intelligence report, then turned back to the front to see if he had missed something.

The report was headed, "Interrogation of Prisoners—A Summary of Conclusions."

The first section described the methods used:

"Prisoners were detained in groups of medial size, as most conducive to free discussion amongst the prisoners. Each cell was equipped with concealed communication heads. The interrogation proper was usually carried out singly or in pairs, and the resulting discussions when the prisoners returned to their cells were carefully analyzed. This paper contains a summary of the conclusions derived from these discussions and interrogations, carried out in various loca-

tions over a large portion of the surface of this planet, amongst various ethnic, linguistic, and cultural groups of the local populace."

Maivail nodded to himself. Save for the use of three long words where two short ones would do, that part seemed clear enough.

He glanced over the bulk of the report, and located a section that seemed to summarize the rest:

"These people are, therefore, divided into many religious, racial, and cultural groups. They are fad-ridden to an almost incredible degree, yet an underlying sameness and mutuality may be observed with few exceptions.^{3,4} It is particularly to be noted that the populace is evidently divided into two primary groups: 1) Those educated in Science; 2) Those not educated in Science. The warrior-caste is evidently made up of those not even slightly educated in Science, as no single individual prisoner manifested any knowledge of the hydrofuser—the basic scientific tool—and, in fact, such individuals did not recognize hydrofusers when confronted with them. Yet the existence of scientific knowledge is inescapably demonstrated by the technology manifest on nearly all sides. One wonders at the absence of effective shielding equipment, but can only suppose that the hydrofus-

ers in use are somewhat crude, and suffer from some unknown defect, possibly a periodic fluctuation in output which creates lag and/or some kind of overlapping envelope effects . . ."

Maivail squinted at this for some time. He could not escape the impression that the person who had prepared this report was missing something, or distorting something to fit his own preconceptions. The trouble is, whatever the difficulty might be, Maivail did not seem to be able to get a grip on it, either.

This was bad enough, but worse yet was that set of facts presented modestly in the body of the report as:^{3,4}

Turning to the next to the last page, Maivail found:

³ Gavik, Major K. Baron: "Report Intel. S63. Anomalous Remarks . . . Conversation Between Prisoners. Hdq. Inter. Cord. Cmd." This report, itself a summary of many other reports, states that various prisoners from widely-separated localities, in expressing perplexity over the events surrounding the invasion and their interrogation, have referred to a formidable individual who remains, apparently aloof from the fight. This sentiment is usually expressed by some variant of the following statement:

"Well, it would take Shurlok Homes to figure this out."

The widespread belief that

this entity, Shurlok Homes, would solve the problem, yet does not apparently choose to interest himself in it, when it amounts (from the local viewpoint) to nothing other than the conquest of the home planet, is in itself amazing. (Does the word Homes—plural of 'home'—have any significance in this respect? Does Homes have more than one home?—More than one home planet?) Even more amazing is the apparent lack of any feeling of resentment that the entity Shurlok Homes does not enter the field with his formidable powers, whatever these may be. (If Homes is elsewhere, situated on another home planet, possibly as yet unaware of events here, it would explain the lack of resentment over his failure to intervene in the present struggle.)

Maivail could feel the beginning of a headache, and resolved to go into the corrector at the first opportunity. However, having finished³ he now had to go on to⁴:

⁴ Sarokel, Lieutenant K. "Report Intel. 12438. The Higin-Delahi Conversations. Hdq. Inter. Unit 1." The report states, in detail, the conversations in their cell of Andru Higin and Stefin Delahi. These two captives are apparently not warriors, but seem to be members of a local technical organization acting in

cooperation with the armed forces. It is necessary to emphasize the qualification "seem" because the in-cell conversations of these two prisoners, unlike the usual case, are totally at variance with their out-cell responses to direct questioning.

It is worth nothing that these two men apparently are members of different races. Higin is of a light skin-coloration, Delahi is very dark. Outwardly (toward their interrogators) they firmly supported each others' statements to the effect that they were local technical personnel. Higin spoke to Delahi as "Steve," Delahi spoke to Higin as "Andi." Once alone, however, their manner changed drastically. Higin and Delahi, once the guard withdrew from the corridor, addressed each other by different names. Delahai became "Dottor Sojak." Higin was now "Odwor Jaf Kalas." Their behavior toward one another became noticeably more ceremonial, less informal. Their principal topics of conversation fell into two categories: 1) What they would do to the invaders (that is, to us) if they had the opportunity; 2) By what practical means they might inform some being referred to as, among other things, "the Warlord."

It seems impracticable to meaningfully summarize the conversation of these two individ-

uals. However, the following brief excerpt from the record seems representative:

Dottor Sojak: "If only we'd never let that scoundrel Toivas talk us into this. All it is to him is an experiment."

Odwor Jaf Kalas: "We'll get back. Don't worry. As soon as the time's up, he'll bring us back."

Sojak: "Meanwhile Barzum goes unwarned."

Kalas: "And how would we warn them, Dottor, if we had never been here? Let us think what we will do to these calotts, not waste our time worrying."

Sojak: "The first problem will be to get word to the Warlord. If he has gone off on another expedition, it may be no simple matter to locate him."

—It would, perhaps, be premature to draw firm conclusions from these two reports, but a connection suggests itself: *Might not the entity Shurlok Homes be the Warlord, who is difficult to locate but terrible in action?*—Further study may clarify this problem.

* * *

Dionnai Count Maivail looked up dizzily. His headache was now well-developed. He got up, and was about to head for the nearest corrector when Angstat came in, looking concerned.

"Sir, two prisoners are missing."

Maivail looked blank. "How can *that* be?"

"No-one knows, sir. They've just vanished."

Maivail started to speak sharply, then suddenly picked up the report he'd just been reading, and thumbed through it hastily. There, staring up at him were the words:

Ordvor Jaf Kalas: "We'll get back. Don't worry. As soon as the time's up, he'll *bring us back*."

Maivail looked tensely up at Angstat. "Do you have the names of these prisoners?"

Angstat pulled out a slip of paper.

"Andru Higin and Stefin Delahi."

XV.

SWANBECK. Holden, and half-a-dozen others were around the table, cigaret butts smouldering in an ash tray in the middle, pencils, erasers, and slide rules lying here and there, crumpled papers littering the table and the surrounding floor.

"Okay," said Swanbeck, looking up from a drawing. "Now, we've got the design, and, as you say, the thing ought to fit close up against the front of the tail-wheel housing. *Maybe* they won't notice it."

"Use a bright aluminum shell," said a slender, sharp-eyed man with a pencil over one ear,

"and it ought to be a perfect match. They've got at least three designs of these aircraft. That one with a slanted set of doors to let the tail-wheel out should look just about the same, if we fit this on the kind with *fixed* tail-wheel."

"In flight, maybe," said Swanbeck. "But when it lands, the tail-wheel is going to stick out at a different angle, and there'll be no doors."

"The chances are, they won't notice. We can rig up something that will look like doors."

Holden said exasperatedly, "Look, though, this thing is too far aft. The weight is going to pull the tail down."

Swanbeck said, "Where else can we put it? We can't move it forward. Two models of these aircraft have forward wheels that fold up to the sides of the ship. The other model has fixed forward wheels. But either way, this would stick out like a sore thumb anywhere except in front of that tailwheel."

"I can't help it, Phil, it's *still* going to weight the tail down. If we put it there, we've got to do something to give them some logical reason to explain the sag of the tail."

"That's a thought. But what?"

Holden frowned. "Maybe we could fit it in with that little problem of getting the thing attached in the first place."

Swanbeck nodded. "I'm sure we can think of something. What we need is something to attract their attention and get them to land. Or some way to *force* them down."

The man with the pencil over his ear said, "This may be beside the point, but has it occurred to anyone that these aircraft have a peculiarly simple design?"

Holden said, "What do you mean?"

"Why, look at them. Obviously, it took technical know-how to make them. The things are *wingless*, and made out of some metal so tough that what blows up *our* aircraft merely *dents* theirs. And yet, here's one with *fixed landing gear*. The thing gives me the impression of a hybrid cross between an advanced technology and a simple technology—as if a patched-up World War I Spad mated with the Marsship and here's the offspring. Or as if we were invited to the launching pad of some great technical race, and when their countdown reached 'ignition,' some guy in an asbestos suit tore out to the rocket, and threw a lighted match down a hole. Like you should open up the hood of a car, and inside where the power plant ought to be, there's half-a-dozen squirrels in a treadmill, if you see what I mean."

Holden, scowling, said, "Let's

see those photographs again."

Someone slid them up the table, and Holden and Swanbeck bent over them.

Holden used a magnifier on the photo. "That is a damned crude landing gear."

Down the table, someone said, "Of course, a great many so-called improvements actually bring their own disadvantages. Maybe these people just like to keep things simple."

"Yes," said someone else. "But the trouble with simple things is, they make your *procedures* slow and complicated. They're good to fall back on, but if you use them as a mainstay, you're like a man with hammer and handsaw trying to compete with power tools. It just doesn't stand to reason that a race so advanced would use such a simple landing-gear."

"Why not? It's got fewer parts. It's—"

The man with the pencil over his ear said impatiently, "Because the thing is *crude*, that's why. Can you think of any engineer who could see that and leave it as it is? Ye gods, man, can you yourself sit there and look at that big flat washer, with the monster cotter pin to keep it from falling off the end of the shaft, and honestly tell me things have got to be *that* simple?"

Swanbeck glanced at Holden and said hesitantly, "What do you think?"

Holden put the photographs back on the table. "The inescapable fact is, they *do* use them."

"Yes," said someone, "but *why*?"

Frowning, Holden picked up the photograph. "Why should a race so advanced that it can produce supertough metals, force-screens and, apparently, anti-gravity, be so crude when it comes to a landing-gear?"

Swanbeck said wonderingly, "When you get right down to it, that's not the only thing they're crude about. Their strategy and tactics are crude, when you stop to think about it."

"They've flattened us."

"Who couldn't, with their superiority? Their procedure has been nothing other than to divide Earth into so many regions, put an expeditionary force down in each region, and methodically pound us flat. All this shows is superiority of *force*."

Holden exasperatedly tossed the photograph back on the table. "Yes, but how did they *get* this superiority of force? They've solved problems we'd have thought impossible. That presupposes a level of technical ability that *couldn't* be maintained by boobs." He looked at the photograph lying in front of him on the table and as if of its own accord, his hand reached out and picked it up.

The crude disc wheel, with its

flat rubber tire, looked up at him blandly.

XVI.

MAIVAIL studied the guard intently.

"Let me be sure I understand this," said Maivail. "You were ordered to take the prisoners to Lieutenant Sarokel for questioning?"

The guard, pale and trembling, stood at attention.

"Yes, sir."

"You approached the cell door, drew your pistol, and ordered the prisoners to stand back from the door?"

"Yes, sir."

"*Did they obey?*"

"Sir, I don't know. Something seemed to explode in my breathing passages. There was a coldness, a sense of—like heavy fog—then a—I just don't know. When I could see again, I was on the floor. The prisoners were gone."

Maivail frowned.

"All right, then. You distinctly remember that, when you approached the cell, the prisoners *were there?*"

"Oh, yes, sir."

"Did they make any threatening move toward you?"

"None that I can remember, sir."

"Did you see anyone else around?"

"No, sir. No-one at all, sir."
"Did you hear any movement behind you?"

"No, sir."

"Does your head hurt?"

"No, sir."

Maivail scowled. "When you woke up, the prisoners were gone, but the cell door was closed and locked?"

"Yes, sir."

"The cell door, in other words, was just as it had been when you approached to let the prisoners out?"

"Yes, sir. Exactly."

Maivail glanced at Angstat, who was frowning at the guard. Angstat said, "What of your keys? Had they been removed?"

"They were in the clip at my belt, sir.—The same as before."

Maivail said, "How close were you to the cell door when you lost consciousness?"

"Very close, sir. I was almost ready to open it."

Maivail glanced inquiringly at Angstat, who shook his head. Maivail looked back at the guard.

"You may go."

The guard saluted stiffly and went out.

The Dispatcher of Aircraft marched in, halted, saluted, and stood straight as Maivail and Angstat focused their attention on him.

"Now then," said Maivail, "as I understand your report, no aircraft are missing?"

"No, 'sir," mumbled the dispatcher.

Maivail said angrily, "Speak plainly."

The Dispatcher stiffened up, increasing his height another quarter of an inch. "Sorry, sir. I mean: 'That is correct, sir. No aircraft are missing, sir'."

"*No single aircraft is unaccounted for?*"

"That is correct, sir."

"What chance is there that any aircraft could have been boarded by the escaped prisoners?"

"Sir, it's possible. If they got to the loading docks unseen, and if they were careful, they could enter the aircraft without too much trouble. There are always at least a dozen aircraft being loaded. The loading crews aren't particularly vigilant—there's no need for it—and it would be a simple job to get into an aircraft that had just been towed in from Maintenance. Then too, the flying crews always wait till the last minute, and only board the aircraft after the Dockmaster signals that loading is complete. The crew naturally would have no reason to search the cargo section. When they reached the target area, they'd just crank the conveyer and send someone back to keep the 'fusers on the belt and trip the levers as they went by. Also, of course, if the conveyer got stuck, they'd all rush back to heave out the

tripped hydrofusers, since a lot of them are set for air-burst, and that cuts the time-margin pretty thin."

"When would the prisoners be spotted?"

"Sir, if they crawled back over the tail wheel and kept their mouths shut, they *wouldn't* be spotted."

"All right. Put three men down there to search each and every aircraft as it comes back in."

"Sir—Since they hit us a while back, we've been shorthanded. The only way I can get three men is to take them from the Dockmasters' gang or from a flying crew."

"Take them from a flying crew, then. If you take them from the Dockmaster, it will slow down the whole procedure."

"Yes, sir."

"I want those prisoners."

"Yes, sir."

"All right. That's all."

The Dispatcher saluted and went out.

Maivail glanced at Agnstat. "What do you think?"

Agnstat shook his head. "It's beyond me, sir. What, actually *did* happen to the guard? If they'd gotten him in close and hit him over the head, I could understand it. But they didn't."

"Well, we've had the whole cleared zone searched, and they just aren't here, so far as it's possible to find out. That means

they *must* be outside. No aircraft are missing; therefore they did not steal one, overpower the crew, or otherwise get control of one. That means they're either hiding on board, or—"

Maivail picked up the summarized report of one Lieutenant K. Sarokel, and read, ". . . As soon as the time's up, he'll bring us back." Maivail looked up exasperatedly.

"Get Sarokel up here."

XVII.

SWANBECK listened dazedly to the weary voice coming over the phone. Finally, Swanbeck said, "Yes, sir . . . Yes, I understand, sir . . . Yes . . . Yes, sir . . ." Gently he put the phone down.

The room was silent as Swanbeck looked up.

Holden started to ask him what had happened, but, seeing Swanbeck's expression, said nothing.

Swanbeck looked emptily across the room for a long moment, then his eyes came to a focus.

"That was Denver. They've finally gotten enough reports in to piece together a picture."

Holden said hesitantly, "Pretty bad?"

"Swanbeck nodded. "You remember, there were eighteen of their invasion forces. We hit six

of them pretty hard. They all went into their shells, and nothing much happened for several days. Then they all built these huge doughnut-shaped chambers to protect against another attack like our first one."

"Then," said Holden, "here, at least, they took up where they left off, only with reduced force."

"Yeah. Well, at the six places where they were hit hard enough, they've done just as they've done here. But at the *other* twelve places, they've changed their tactics. Now, instead of attacking troops, missile-launching sites, and other military installations, they're attacking productive facilities of all kinds. One of their aircraft comes over a target, bobs around through a maze of fire from anti-aircraft guns and rockets, then lets go a carpet of bombs. Every last one is a hydrogen bomb. The target and defense facilities disappear. The plane turns around and goes back for another load. What can anyone *do*?"

Holden said in puzzlement, "Even *that's* crude."

Swanbeck looked blank.

"Sure," said Holden, "it's what we were talking about. Their methods are effective, but only because of their overpowering force."

Swanbeck had the expression of a man hit in the stomach.

"I know. It's my own argu-

ment. But what's the difference? Sure, they're using their force clumsily. They're laying down a dozen H-bombs when one would do the job nicely. But what of it? They've got H-bombs running out of their ears. What does it matter if your opponent is wasteful of his strength, *if his strength is unlimited?*"

There was an undertone of despair in Swanbeck's voice, and Holden said softly, "He alone is lost who—"

Swanbeck blinked. "Sorry. But this is like fighting a duel with someone who has impenetrable armor, a blade that cuts steel like cheese, and such perfect health that he never tires, and his wounds heal before your eyes. What do you *do*?"

Down the table, the thin man with pencil over his ear gave a dry laugh. "There's a standard answer to that problem. You can't win it *his* way. Instead, squirt tobacco juice in his eye."

Swanbeck started to make an angry retort, then blinked, as did Holden. For an instant, something seemed to quiver in the air, and both men tried to grasp it.

At length, Swanbeck said, "This limpet-mine idea. There's something missing."

"I know it," said Holden, puzzled by his sense of having been close to a solution. "But, aside from the fact that we have to attach the thing—"

"Yes, but look. It's not a *general* solution. Even if we knock out three or four of their bases, what's to prevent the rest from finishing up where they are, then moving over to polish us off? Meanwhile, if only *one* of these invasion forces spots the trick, it can notify the rest. What if, then, they just put an inspection team into action to check incoming planes?"

"It will stop us."

Swanbeck nodded. "Now look. We're in a terrible spot. We've got to beat them fast, because time is on their side. Yet they've got almost an absolute defense. The only place where you can get through that barrier is the spot where their own planes go through. But they're crafty. They've fixed it so there are a number of entrances, open just briefly. And even then, we don't hit their *inner* base."

Holden nodded. "That's why we thought of the limpet mine. If they don't see the mine, and pass the plane through to the interior, *then* it blows up—"

"Yes, but there are too many *ifs*. The first plan we used offered us the possibility of knocking out two-thirds of them. *This* plan only offers us a chance to hit two or three of them. After this they will increase their precautions to the point where we will never be able to get another thing through."

Holden drew a deep breath. "You've got a point."

There was an intense silence as they groped for another solution.

A startled-looking sargeant stepped in.

"Sir, Mr. Higgins and Mr. Delahaye are out here."

Swanbeck and Holden stared at the sargeant.

"Send them in."

XVIII.

DIONNAI Count Maivail glared at Lieutenant K. Sarokel.

"Do you mean to tell me *they* interrogated *you*?"

Sarokel spread his hands. "Your Excellency, my purpose was to get information from them. A good intelligence officer can learn much from the questions the prisoner *asks* him.

"But meanwhile, you are giving him information."

"But what can he do with the information, sir? A *prisoner*, inside the shield, totally cut off from contact with the outside—"

"This pair seems to have gotten out."

"Sir, as soon as I heard them make that comment about being gotten out, I ceased to give them information. The possibility of their escaping had never occurred to me before."

"I suppose the information

you gave them was *true* information?"

"Sir, to give them falsehoods would have complicated the matter hopelessly. These locals were not fools, sir. They were very sharp."

"Are all the prisoners intelligent?"

"Not as intelligent as this pair."

"So, naturally, you give information to those who are most dangerous."

"The most intelligent are the most dangerous, your Excellency, but they are also the ones from whom the most can be learned, and who can help most if their cooperation is gained."

"Did you gain the cooperation of these two?"

"Not yet, sir. Though I believe I *had* succeeded in dulling the edge of their enmity."

Maivail straightened in his seat. "—In, that is, making friends with and comforting the enemy?"

"Prisoners under interrogation are in a special category, sir. The comfort which they receive is intended to react to our benefit. If they incidentally are made to feel better for the time, this does not harm us. They will speak more freely if they feel that they are speaking with a friend."

"You would as readily shoot one you were friends with, then, as one you had interrogated

strictly according to standard procedure?"

"Not at all, sir. I would regret the necessity. But I would do it anyway. My superior would, however, be unlikely to order me to do it, as it would react on future interrogations. I would be less likely to make friends if I knew I might later have to execute the prisoner. My job, sir, is strictly and solely to get information. I may be removed any time, but so long as that remains my job, I do it to the best of my ability."

Maivail nodded. "Nevertheless, Lieutenant, these prisoners escaped."

Sarokel looked regretful but firm. "Guarding the prisoners is not my job, sir."

Maivail sat back. "Very true. Now, you say you can learn from what questions the prisoners *ask*, as well as answer. And of course, you learn from what you *overhear*?"

Sarokel hesitated. "That depends on circumstances, sir."

"Such as what?"

"Well, sir, prisoners are not always truthful."

"I am speaking now of their conversations while alone in their cells."

"Yes, sir. Since there is a presumption that what is said alone, away from the interrogation room, is unforced and therefore true, it follows that it is exactly there that highly-intelligent pris-

oners would be most likely to try to deceive the listener."

"Do you mean," said Maivail angrily, "that you *told* them there were concealed receptor heads in their cell?"

"Certainly not, sir. I told them no such thing. And they never asked. I only mean that these were highly-intelligent individuals, and they *may* have guessed the presence of those listening devices."

Maivail drummed his fingers.

"Then you don't believe that conversation you reported?"

Sarokel looked acutely uncomfortable. "I neither believe nor disbelieve, sir."

"You reported it."

"For evaluation by higher authority."

Maivail finally nodded. "All right, Lieutenant. You have defended your actions very creditably. Moreover, I have the impression that you must have formed some sort of coherent picture of this folk, its customs and capabilities. I would like to ask you a few questions."

"Certainly, sir. I'll tell you whatever I can."

XIX.

SWANBECK and Holden stared at the two ex-captives. Higgins had his left arm in a sling, and Delahaye was on crutches. Both were grinning.

Swanbeck said, "Do I understand correctly that you have been *inside that barrier*, and nevertheless are now out again?"

Higgins said, "We were inside *both* barriers. They've got one inside the other."

Delahaye added, "The cells we were in were inside a kind of underground building within the barrier."

Swanbeck said, "Did you get to look around in there very much?"

"Sure," said Higgins. "We not only got to look around, but we had things interpreted for us, and explained to us."

Delahaye said, "We interrogated our interrogator. It was a highly worthwhile experience, though a little boring toward the end."

"However," said Higgins, "it seemed worthwhile to stick around. It was educational. Moreover, it seemed a shame to hurt Sarokel's feelings."

Delahaye nodded. "It would have been interesting to bring him out with us. Only fair, too, after he'd shown us around."

"It would have confused the issue, however," said Higgins.

Swanbeck looked around helplessly at Holden. Holden leaned forward. The first problem, he told himself, was to somehow split them apart. He asked solicitously, "How's that leg, Steve?"

"Not bad," said Delahaye. "—All considered."

Higgins said, "Those trees only *look* soft."

Holden glanced pointedly at a man down the table, and at the empty chair beside him. He looked back at Delahaye. "Hurt to stand on it?"

"Well—"

Toward the other end of the table, someone cleared his throat. "Come on down here, Steve. We've got an extra chair."

Higgins and Delahaye glanced at each other. Delahaye grinned and walked to the other end of the table, where he was immediately surrounded by eager questioners.

Holden centered his attention on Higgins. "They're pounding most of the civilized centers of this planet to bits."

"Naturally."

"Why? What did *we* do to them?"

"Well," said Higgins dryly, "we sent up a pretty good-sized planetary exploration team. What else?"

"Why should that hurt them?"

"Obviously, it made us a potential rival. It proved we had—ah—'hydrofusers'—and so were dangerous."

"What's a *hydrofuser*?"

"The basic tool of Science."

"The *what*?"

"There is no Science without hydrofusers. Hydrofusers are

the basic tool of Science. Science is the knowledge of what you can do with hydrofusers, and how to do it. You can only make hydrofusers when you already *have* hydrofusers. When you *have* hydrofusers, and know how to use them, then you have endless power, can control atomic and molecular structure, process metals, set up impenetrable barriers, create contragravity, build correctors, and make *more* hydrofusers. If you have an enemy, you make lots of hydrofusers, pull back a special switch on one side, and dump them on him. When they go off because of instability, that's that."

HOLDEN was leaning forward, gripping the table. "Are you saying they've got some one master tool—Wait a minute. This is a controlled *hydrogen-fusion reactor*?"

"How should they know? And if *they* don't know—"

"Wait a minute. If they *make* such a thing, they *must* know!"

"Why? Can't I use a hammer without knowing the composition of steel?"

"Yes, but you sure can't make *another* hammer without knowing how to do it."

"Oh, *sure*, I've got to know how to *do* it. What you do is, you take four *hydrofusers*, and look up the settings in the Manual, under the Reprostruct Heading.

Then you get or make the stated quantities of materials, and using one *other* hydrofuser as a model, you place it in alpha-focus of the other four hydrofusers. Now, you check the settings of the other four hydrofusers, and move the assemblage so the materials are in the beta focus. Then you set the four for cycling instability, and go away for a while. When you come back, most of the materials are gone, and you've got *six* hydrofusers instead of five. Now you run off an extra Manual to go with the new hydrofuser, and there you are. It's easy. That lesson comes in Science 6."

Holden and Swanbeck glanced at each other. Swanbeck looked at Higgins, and said dubiously, "How do you *know*—"

"That we were told the truth?" said Higgins innocently. "Of course, we *don't*. Possibly they planned to let us go after pumping us full of lies, and actually *helped* us to escape."

"Well," said Swanbeck, "it seems surprising that you *did* manage to escape."

Holden, knowing Higgins distaste for authority, settled back and said nothing. There was a side of Higgins that Holden tried to avoid.

Higgins was now smiling pleasantly at Swanbeck, and let his gaze rest admiringly on the silver star of Swanbeck's rank.

Swanbeck's neck reddened. His hand tightened reflexively into a fist, then relaxed. Abruptly he said, "Go get it."

Higgins looked at him ironically. "Get what?"

Swanbeck made a gesture of disgust. "While you enjoy yourself, the Bugs go on with their plan."

Higgins looked off at a corner of the room, then stood up, and went out without a word.

Swanbeck glanced at Holden. "What started that?"

"He doesn't like authority. Moreover, you doubted his word."

"I had to."

"What does that matter? Just watch yourself, or you may wind up as Exhibit A in the damndest farce you've ever experienced."

Swanbeck, his face perfectly blank, watched Higgins come back, carrying a dark brown box about the size of a desk dictionary. He set it down directly in front of Swanbeck, and turned it so that a slot in the brown surface was faced toward Swanbeck. This slot was about half-an-inch wide by two inches long. Beside it to the right was a long orange triangle pointed down, with what roughly looked like Greek letters at the base of the triangle. To the left of the slot was a similar green triangle, pointed up. One corner of the box was torn, crumpled, and stained.

"Now," said Higgins, eyeing

Swanbeck alertly, "I'll tell you how we got out of the Bugs' prison." He reached into his pocket and pulled out a small flat toy pistol, and pointed it at Swanbeck. Swanbeck eyed it without a flicker of expression.

"This," said Higgins, "is a squirt gun. Right now, there's a little piece of wax over the nozzle." He covered the end of the gun briefly with one hand, and then held out the hand.

Swanbeck's facial expression didn't change. "Ether," he said.

Higgins nodded. "We went to the base of the ravine, when we left, by Jeep. I'd had trouble starting the engine earlier, and brought this out to try squirting ether in the carburetor. But Andy had already found what was wrong, and so we didn't have any trouble. I stuck this toy gun in the top of my boot when the Bugs got us and they didn't find it. Now, the Bugs have bigger eyes, but look a lot like us. Only they have one peculiar feature. Where you'd expect a nose, they have something that looks for all the world like the intake of some kind of air duct, complete with grille. They not only breathe through this thing, but sounds come out of it. As nearly as we could discover, it isn't equipped with anything corresponding to our sense of smell. There's been terrific devastation in there, and the stench almost knocked us

out. Now and then, the Bugs seemed to choke a little, but they were nowhere near as conscious of it as we were.

"Well, to find out if they could smell or not, I put some ether on my handkerchief one time, and whipped it out when the guard came in. He didn't comment, but he lost his balance and looked dazed. When it came time to escape, we gave him a good squirt in the air-duct and he passed out. We let ourselves out, hid in a plane, and as we passed low over some pines, we threw this box here out and jumped for the trees. Now, I say this is a hydro-fuser, which they use to make things, and which they convert to a bomb by a process that puts a little lever here under this slot in the box, where usually there's a blank space."

Higgins looked intently at Swanbeck.

"Now, maybe they fooled us. Maybe we're suckers. Pull the little lever and find out."

MAIVAIL listened attentively but with a deep frown as Lieutenant Sarokel summed up.

"To put it as briefly as possible, sir, I can't escape the impression that these people have a fundamentally different approach from ours. To draw a comparison—Are you familiar with the Great Plateau of Sanar?"

"Where the vacation resort is

located? Certainly. I've been there several times."

"Well, sir, you may remember what the approach to it is like. The bulk of that section of the planet is a swamp."

Maivail smiled reminiscently.

"Yes, and the back-to-Nature faddists ride self-powered wheels from the spaceport across the causeway over the swamp, then they climb up the side of the cliff to the Plateau." He laughed. "When I was a boy, I got drawn into a nature-faddist group, and went over the causeway on a wheel. The bugs all but ate us up on the way. Then we arrived at the bottom of a steep cliff, and I looked up, and up, and up. I was tired, hot, and miserable. Around me, the faddists were getting ready, without any delay, to start the climb. Way up the side was a little ledge where we'd spend the first night. The cliff wall in front of us was vertical, like the side of a building.

"Just as we were about to start, there was a shout, then a scream, and I looked up to see several climbers silhouetted against the sky, tied together with a long rope. They plummeted down behind a shoulder of rock, and then I couldn't see them, but I could still hear the scream. There were several of the climbers, but it sounded like just one scream. Then there was this *crump* sound.

"Our own party stood there, looking pale. Some of them were trembling. Then the leader, a burly fellow, said in a matter-of-fact tone, 'That approach never *was* any good. Okay, hook up. Best we start.'

"About that time," said Maivail, "an air-taxi hovered to one side, and the driver called out without much hope, 'Anyone for the top?' I got in that taxi so fast it went sidewise for a while. Well, all the way up, we passed cliff face, and more cliff face, and as that flat vertical wall dropped down past us, I was giving thanks for the one sane impulse that had put me inside the taxi, instead of on a rope with two or three people shaking and trembling in front of me, and that long drop gaping underneath. Then for some reason, I started to accuse myself of cowardice, and was almost fool enough to go back down again. But fortunately it occurred to me that I was going to the Plateau for a *vacation*, not as part of a combat-infantry training program. I went on up to the top, and had three days vacation more than I'd have had if I'd climbed up and down the side, and I'll tell you, I enjoyed that extra time. I like the Plateau. But not that business of climbing up the side."

Sarokel was listening intently. "Yes, sir. That is exactly the way it is. The land below is flat, but

it is bug-infested, soggy, miserable. The land atop the Plateau is also mostly flat, but except for the lakes and pools, it is dry, firm, and smooth. But to get to the Plateau, if you don't have an air-taxi ride, is quite a steep climb, even if you pick the gentlest possible approach."

Maivail nodded. "Not worth it. Unless, of course, you had no other way up."

"And that's it, sir."

Maivail scowled. "What do you mean?"

"That's the comparison. We are *on* the Plateau. These people here are either on the ground below, or climbing up the cliff *to* the Plateau."

Maivail thought it over. "This sounds fanciful."

"I admit it, Your Excellency. It is fanciful."

"But you think it's true?"

"Yes, sir."

"Can you back this up? Can you connect your comparison to actual facts?"

"I believe so, sir."

"Go ahead." Maivail waited tensely.

XXI.

SWANBECK and Holden stared at the smooth, olive-green device with its little knobs and dials, at the depleted pile of iron nails at one end of the device, and at the little shiny ingot at the other end.

Holden hesitantly reached out, and picked up the ingot. It felt warm, and very heavy for its size.

Swanbeck, frowning, said, "*Is it—?*" He studied Holden's face, glanced at the device, then at the depleted pile of iron.

Holden took out his pocket knife.

"It's comparatively soft," he said. "Not iron. And it's heavy. *Very* heavy. If it *isn't* platinum, it's something just as good."

"Then," said Swanbeck, "are we to assume that this—device—*turned iron into platinum?*"

Holden looked at him quizzically. "*Assume it?*"

"Right. How do we *know* this isn't some kind of shell game? This is the kind of thing people are always falling for. Higgins, here, has been in the hands of these highly-advanced aliens for long enough to have been brain-washed, hypnotized, and programmed to believe anything they choose to tell him. Sure, we see the little barriers form on each end, and we wind up with less iron and with this chunk of platinum. Very convincing. What if there's a stack of these platinum samples in there. If we fall for this, our best scientists go off after this red herring, and waste time that should have been spent figuring out how to smash the invaders."

Holden frowned. "Bill?"

A heavy-set man stepped forward. "More nails?"

Holden nodded and picked up the brown case the "hydrofuser" had been in. "Get enough to fill this."

"Sure thing."

Holden beckoned to another of his men. "Hunt up a Geiger counter, will you?" He turned to Swanbeck. "We'd hate to wind up with a home-made, alien-style atom-bomb here."

Swanbeck, who had been examining the little ingot, set it down in a hurry.

Higgins looked blank for a moment, then got up and pulled Delahaye out of a huddle of spell-bound questioners. Higgins' blank look now appeared on Delahaye's face. Both of them, looking serious, pulled over pads and pencils, sat down, and began to sketch the "hydrofuser." Their faces were intent.

Swanbeck glanced at Holden, and nodded, frowning, toward Higgins and Delahaye. Holden studied their faces, then glanced back at Swanbeck. "They've just thought of something. They think maybe they've overlooked something, and they're trying to find out.—That's my guess."

"They look worried to me."

Holden shrugged. "If so, it's their problem. They're conscientious, and we can trust them."

Swanbeck looked unconvinced, but said nothing.

One of Holden's men came in, and set down the brown box, filled with nails. Another came in with a Geiger counter, tried it on the little ingot, and shook his head. "Nothing doing."

Holden tried it and nodded. "My wrist watch is a lot worse than this ingot."

HIGGINS and Delahaye traded drawings, studied them intently, closed their eyes briefly as if giving thanks, and got up simultaneously.

Swanbeck's face remained totally blank and expressionless.

Higgins said, "You had a point there, all right. We *could* have been brainwashed. But if we'd been hypnotized, and taught how to use this thing under hypnosis, it strikes me our memory of it ought to get better than if we'd only learned by seeing it demonstrated.—Well, it isn't so."

Higgins and Delahaye handed Swanbeck their sketches. Swanbeck compared them with the hydrofuser and with each other. In both, the general proportions of the device were good, and the relative positions of most of the dials and knobs were right. But some of the knobs were misplaced, the sizes of the knobs weren't clear, and while the *relative* positions of most were right, the actual positions weren't. The sketches were about what might have been expected from two

careful observers who had watched to see how a strange piece of equipment was used, but had had no opportunity to study it repeatedly.

Swanbeck nodded, and handed the sketches to Holden. "But why," he said, glancing from Delahaye to Higgins, "did they show you how this was used?"

Higgins said, "We had a clever interrogator. Why *not* show us? He might guess from our reaction whether we had the thing ourselves."

"Besides," said Delahaye, "as far as he knew, we weren't going anywhere."

Swanbeck glanced at Holden, who said, "They think *we* have it?"

"What *else* could we have slung in through the—ah—'cleared lane' that would have done so much damage?"

Holden looked at the device, then glanced at Swanbeck. "This might explain the crude construction features of their planes. If they have the capacity to produce very tough metals, but not the skills to form and process them—after all, when possible, you finish the surface of stainless steel *before* you heat-treat it—"

"So they make their things in the easiest, simplest shape to form?"

"I'd think they'd *have* to," Holden glanced at Higgins. "Are these people scientists?"

Higgins said dryly, "Sure they are. Science is, 'How to use hydrofusers.'"

Delahaye added. "They have no word for 'research.'"

Swanbeck said, "What about medicine?"

"Correctors," said Delahaye.

"What's a corrector?"

"You get in, it puts you to sleep, and when you wake up, you're better."

Higgins said, "I got a pretty bad cut on my wrist when they captured me. They put me in a 'corrector.'" He held out his wrist. "It doesn't prove anything, because you didn't see the cut. But there's no scar."

Holden said, "Wait a minute. You remember that time you jabbed a length of glass tubing into your thumb? Let's see that hand again."

Higgins came around the table, and held his right hand out. The left arm was in a sling, but the hand was unbandaged. Holden studied both thumbs. "Which one was it?"

"The right, I think."

Swanbeck said, "This was a bad cut?"

"It was deep," said Higgins.

Holden said, "It wasn't dangerous, actually, but it left a distinct scar." He turned Higgins thumb over, then shook his head. "No sign of it now."

Swanbeck scowled. "When did **you** hurt your arm!"

"Getting out of their plane. — Or rather, in reaching the ground afterward."

Swanbeck said, "I can accept the reality of this—'hydrofuser'—more readily than I can believe in a thing that automatically cures sicknesses."

HOLDEN scratched his head. "I can't help it, Phil. There was a distinct scar there, and it's gone now. He glanced at Higgins. "How does it work? What's the principle?"

Higgins looked doubtful, and glanced at Delahaye. Delahaye in turn shook his head, and glanced off across the room. Higgins said, "Trying to get theory out of that crew was like trying to squeeze water out of a rock."

Delahaye said, "We tried." He looked at Higgins. "What was the explanation? There was something about an alpha-current, but I think that had to do with how you hooked it up. What was that other—"

Higgins frowned. "I think I remember the gist."

Holden and Swanbeck leaned forward alertly.

Higgins quoted slowly, "The device detects examination a state of affairs which is not healthful, and corrects it.—Naturally, because this is its function."

Holden swore.

Swanbeck smiled sourly, then

said, "Wait a minute, now. Higgins, did you have any fillings?"

"Yes, of course."

"Any teeth pulled?"

Higgins frowned. "Sure." His face took on the peculiar expression of one using his tongue to feel around the inside of his mouth. Then he said, "This is silly."

Holden frowned. "The device could hardly take out fillings or grow new teeth."

"All right," said Swanbeck exasperatedly. "But let's put some limit to the thing. I'm up to my ears in wonders and mysteries. Find something they *can't* do."

Holden got up. "Okay, Andy, take my seat."

Higgins, scowling furiously, said, "What for?"

"So I can bend your head over the back of this chair. —Just imagine it's time for your dental check-up."

Glowering, Higgins sat down. Delahaye grinned. Holden bent over Higgins, and Swanbeck leaned out across the table with a flashlight. There was a considerable silence.

Holden straightened up, his face showing awe. Swanbeck looked totally blank. Higgins shut his mouth with a click, and looked around anxiously.

Holden said, "That *doesn't* limit them." He glanced at Swanbeck. "You don't think they did *this* with hypnosis?"

Swanbeck shook his head. Delahaye, grinning, said, "The suspense is killing him. What's he got in there?"

"Thirty-two perfect teeth," said Holden.

Swanbeck sat down. "It isn't going to be enough to *beat* them. Somehow, we're going to have to *capture their equipment*."

XXII.

DIONNAI Count Maivail felt dazed. "No correctors, either. What do they do when long-term fatigue hits them?"

"They eventually cease to exist physically. As with us in a violent accident. As with savages, animals, and diehard Nature fanatics."

"All of them?"

"Apparently, sir."

"*Whew*. And for sicknesses and injuries?"

"Specific cures and treatments. Different ones for different troubles."

"How, considering all this, do you explain their managing to put up such resistance?"

Sarokel said cautiously, "They've been climbing for a long time. They haven't quite reached the plateau, but they aren't bog-dwellers, either. They have almost the know-how they need to *build* the things that we rely on as basic."

Maivail looked at Sarokel.

"You don't choose to draw any conclusion from that?"

Sarokel stiffened. "No, Your Excellency."

Maivail said. "Then I will have to ask you. You say you think that they are almost ready to make, for instance, hydrofusers?"

"Yes, sir."

"And make them *without already having them*?"

"Yes, sir." Sarokel looked tense.

Maivail leaned forward. "Can we make hydrofusers, without first having them?"

Sarokel drew a slow breath. "No, sir."

"Then *they can do what we cannot*?"

"The conclusion, unpleasant as it is, seems inescapable, sir."

Maivail nodded, and settled back. "That's heresy. You remember your teachings:

"(1) In the Beginning was Man, and his hydrofusers, and the Manual, and above all the Ruling Spirit.

"(2) And by command of the Ruling Spirit, Man was taught to use his hydrofusers, and to read the Manual.

"(3) And the use of the hydrofusers according to the Manual is Science, and it is taught that Science sets Man above all other worldly creatures.

"(4) And the use of Science destroys hunger and sickness,

and clothes and shelters Man, and defeats his enemies . . .”

Maivail paused, then repeated, “‘1) In the beginning was Man, and his *hydrofusers* . . .’—How do you get around that?”

“That,” said Sarokel uneasily, “may hold for *us*, sir. But these creatures have apparently not yet reached what we look upon as the beginning.”

“But they are getting close to it?”

“Yes, sir. Speaking on the basis of what I have deduced from questioning a great many of these people, listening to their secret conversations, and studying the available translated literature, I see no other reasonable conclusion.”

“All right. Now then, that brings up two points. First, if they *should* develop our devices, what then? Who will be more powerful then?”

“Well, sir—it’s weighted in our favor now. Our base is much broader. But they are no push-over. With our devices added to theirs—it doesn’t appeal to me, sir. It looks clear that they would have a considerable local edge. For instance, think what the ability to screen their defenses would mean to them. That would block our attack. Another question that occurs to me is, is our Plateau the highest possible peak of attainment? I hesitate to go on lest I fall into heresy. Yet, even with-

out considering that, it seems clear that if they should somehow acquire our devices while retaining their own—which have already sufficed to damage us severely—”

“—They might win?” said Maivail.

“—In time. It certainly seems reasonable, sir.”

Maivail nodded. “If A is only moderately bigger than B, then it follows that A plus B is much bigger than A alone. This is certainly logical.”

“Yes, sir.”

Maivail nodded, his expression that of a man who bites down on a succulent mouthful, and finds a pebble.

“Very well,” he said. “That brings us to the second question.” He glanced at a report, then pinned Sarokel with his gaze. “The Warlord.”

“Sir,” said the lieutenant plaintively, “I have admitted that I simply don’t know about that.”

“Then relieve your mind of the uncertainty,” said Maivail, pulling out a thick wad of reports. “Here are the fellow’s memoirs, translated. They came in a little while ago.”

Sarokel stared at the top report, which was headed:

—A Translation—
WARLORD OF 12Q2(2P6)11-4
—Personal Reminiscense—

SAROKEL looked up. "Why that's the next planet out from this one."

"Exactly. But the description doesn't match our survey report."

"I think I can explain that, sir. After all, if this Warlord is a reality, then it follows that the conversations of Higin and Delahi are probably true.—It's the work of a camouflage device made by two scientists of 12Q2 (2P6)11-4. I don't remember their names, but it's all down in a report somewhere. The two prisoners were talking about it one day. I remember it very clearly. One of them commented about the heavy gravity on this planet. The other remarked that for that reason the Warlord might better not come direct to here with his forces, but entice us to attack the home planet. His words were 'It will be much handier to kill them there.' But the first said that, of course, this camouflage device Tovas—that was one of the names—had made, would keep us from invading, as it would cast the wrong image on our minds and instruments. Then the second said, in that case, exactly how were they to get their swords into us? The first said not to mention it, but the Warlord some time ago had commissioned one of these scientists that had been mentioned—I think it was the other one—to start his 'automatic factory'—I take it this is

an assemblage of a great many hydrofusers, timed by clockwork—to start this huge assemblage turning out space-warships. With these, he said, it would be simple to cut our communications with home, and they could have a colossal space-battle with us when we tried to take off, and *that* would afford everyone ample opportunity for glory. All they would have to do to start this battle would be to locate the Warlord. About this time one of them spoke of the 'wizardry' of the scientist who'd sent them here, and asked the other if he'd noticed what tongue they'd been speaking. That was the end of the information, sir. The other gave an answer that started off something like, 'Raj dia, Dotor, sij haed . . .' We weren't able to match it up with any of the local languages, and before we could get much more of it down on tape, they disappeared."

Maivail was wide-awake. "They didn't say any more about the timing of their attack, or their tactics or weapons?"

"Nothing, sir. I gathered that all the decisions would be made by this Warlord. We'd have to take into consideration his character."

Maivail had already spent considerable time doing exactly that. It was obvious that the fellow liked nothing better than a good battle. Anxiously, Maivail leaned

forward. "Listen, Sarokel, how long do you suppose it will take them to locate him?"

"I have no idea, sir."

With an effort, Maivail suppressed his anxiety, and nodded. "Well, you've been very helpful, Lieutenant."

"Thank you, Your Excellency."

Sarokel went out. Maivail sucked in a deep breath, and reminded himself that they didn't *know*, on the basis of actual physical observation that the Warlord was a reality. But, if he wasn't, what was the fellow writing his memoirs for?

Frustrated and angry, Maivail cursed under his breath. What was *he*, Marshal-General Dionnai Count Maivail, Supreme Commander Combined Invasion Force 12, wallowing around in this bog of pestilent half-facts for? Why should *he* have to evaluate these mysteries?

THEN he remembered that the cause of the trouble was nothing else than that the original chief resident agent on the planet, who had run into the mess first, had been shot by that second resident agent, Lassig, and the original staff, that had more or less figured out the situation, had then been flashbombed out of existence by this same Lassig. And Lassig's *own* staff naturally had been careful not to arrive at the same solution.

Maivail for an instant saw dancing spots before his eyes. There passed through his mind, with grisly satisfaction, the realization that he would certainly be perfectly justified in taking Lassig, and—

But then it dawned on Maivail that he *couldn't* do that, considering that he had already awarded Lassig a silver nebula for those self-same actions that now caused all this mess.

Maivail's clenched fist struck the desk. With his attention no longer fixed on concrete problems, he became conscious of a rasping sensation in his throat. He seemed, now that he thought of it, to be swimming in some kind of a gaseous sea. The bobbing of this sea caused the distortion of objects in the room. As he watched dazedly, the thing got worse. The desk stretched out like a spaceport. The opposite wall shrank into a little thing no bigger than a piece of paper.

Maivail groped amongst the gigantic objects on his desk, and reached out with an arm the size of a spaceship toward the button that would summon his Executive Staff Chief, Kram Barn Angstat.

However, to hit the big button was no easy job. The motion of Maivail's huge arm had to be coordinated with precision, or it would miss the button. As he watched in frustration, the arm

cruised past the button well to one side, and when he sent out his mental orders to correct the error, the arm was sluggish in coming back so he could make another try. Worse yet, as was only natural, an arm *that* size was heavy, and it was pulling him off-balance.

Maivail's next attempt, however, landed his gigantic thumb smack in the middle of the enormous button, and then it vaguely occurred to Maivail, as a little, barely-perceptible figure appeared in the tiny door across the room, that something was not right.

Angstat's voice reached him clearly enough. "Sir, there's a new report on this 'Shurlok Homes.' The—*Sir?*—Your Excellency! What's wrong?"

Angstat's voice, toward the end, was like booming thunder in Maivail's ears.

"You damned little ant," he said, eyeing the miniature figure that wavered before him on the steeply slanting floor. "Get your voice down to normal or I'll drop a finger on you."

The tiny figure of Angstat registered alarm as Maivail menaced it with a space-fleet-sized hand. Then abruptly, Angstat rushed forward, enlarging enormously as he came.

The room went into fantastic vibrations, with everything in sight changing shape, propor-

tions, and relative position. The enormous desk inverted itself, an incredible feat for an object nearly the size of a planet, and it carried with it the monster chair, still attached to the tiny, far-away floor.

Angsat was urgently saying something, in a voice like ten hydrofusers gone unstable at once, but it suddenly was all too much for Maivail. The whole miserable scene suddenly dwindled and faded—sight, sound, touch, balance—everything—and then he was free of the mess.

XIII.

SWANBECK put the phone down carefully. "Denver thinks we've got damned little time. The Bugs are starting to switch their heavy forces into new territory. Denver can get the ether to us; but to get it inside of warheads, rigged so it will escape into the air, and not flash into flame—"

Holden said, "The only way to get it in there is to *take* it in there on one of those planes."

"How do we do *that*?"

There was a tense silence around the table. Holden glanced at Higgins. "You *jumped* out of one of their aircraft, and lived to tell about it. How low was it?"

"This one," said Higgins, "was maybe ten feet above the tops of the pines when it slowed and changed course."

Swanbeck said, "That's a rarity. But at night, when they protect the approaches to the Barrier, at times they drop to fifty or seventy-five feet above the ground."

Holden nodded, and turned back to Higgins. "You were *in* the aircraft. Were there any unusual features about the way it was built?"

"Sure. The walls were hard as steel, and about three inches thick."

"The planes have windows. What's the glass like?"

"Like thick armorplate."

Holden exasperatedly moved the stack of heavy shiny ingots to get at the photographs underneath. He studied the plane with fixed landing gear. The crudity of the thing now stared him in the face.

"All right," he said, "what about this undercarriage? Could we shoot an arrow with fishline between the axle and the fuselage?"

"H'm," said Swanbeck.

Higgins said, "With fishline attached?" He glanced at Delahaye, who nodded, then sorrowfully tapped Higgins' arm and his own crutches. Higgins looked momentarily crestfallen, then straightened up. "We can bring them down low. We can probably even get back in, ether and all."

Holden said, "How?"

"We watched them while we

were in there. They've got so much power, the average Bug just doesn't need to think very much."

"Go on."

"Well, while we were in there, our interrogator casually asked us about Sherlock Holmes. Was our morale suffering because he hadn't gotten into the fight and helped us?"

Holden blinked, stared at Delahaye, then back at Higgins. "Why did he ask *that*?"

"There's only one conceivable reason. They believe he's a real person."

Swanbeck shook his head, and glanced at his watch. "Time's flying."

"Wait a minute," said Holden. He glanced at Higgins. "What's the connection?"

"We planted the idea that there is an *actual Martian civilization*. If they'll believe the one, why not the other?"

"Why should they believe *either*?"

"Because by routine, they've got teams working through our literature—our so-called 'Planetary Records.' Their habit of thought is different from ours, and they haven't got things sorted out yet."

"What's the advantage of fooling them?"

"At best, they're going to think an army of Martians is all set to descend on their rear. At

the least, they're going to waste time trying to figure out what's going on."

"And so," said Holden, "how does this help us bring them down?"

Higgins said, "We've got access to ground-effects machines, and the facilities to form medium and small pieces of metal quickly, right?"

"Yes, if we don't get blasted off the map before you get to the point."

"Okay," said Higgins. "That should do it." He pulled over a piece of paper, sketched rapidly, leaned forward, and began to talk in a low earnest voice.

XXIV.

DIONNAI Count Maivail opened his eyes to see Angstat looking in the opening of the corrector.

Maivail, feeling like himself again, climbed out. "How long was I in, this time?"

"Nearly two days, sir."

They started down the corridor.

Maivail said, "*That long?*"

"Yes, sir. I've been in and out myself. There's some kind of sickness going around. We've had to triple the number of correctors to keep up with it."

"What's the cause?"

"The usual, sir. It's something in the food, or the air, or something. The details don't matter."

They stepped around the mouldering odds and ends of a corpse lying in a cross-corridor, where the earlier blast had burned away a ramp leading to the surface.

Maivail said, "This ought to be cleaned up."

"I know it, sir. But there have been so many more important things to do—" Angstat spotted a technician idling along down the corridor. The fellow looked as if he had all the time in the universe. "*You there!*" bellowed Angstat.

"Sir?"

"Come here a minute . . . You see that? Shovel it into the corner with the rest, and polish up this space on the floor here."

As the technician leaped to obey, Angstat rejoined Maivail. "You're right, sir. It's bad for morale to let our standards down. I'll see that the policing of the area is kept up to regulations from now on."

Maivail nodded approval. "Now," he said, "to more important matters."

"Yes, sir."

"Have we located those two missing prisoners?"

"No sign of them, sir. They've vanished into thin air."

"Any indications of—ah—hostilities—from the fourth planet?"

"Not a solitary thing, sir. They probably haven't managed to locate this Warlord."

"How's the conquest of the locals coming along?"

"Well, sir, there's this sickness, but, on the whole, it's coming along splendidly. We've got production facilities in two-thirds of the districts reduced practically to rubble." He hesitated. "However—in the rest of the districts, sir—I regret to say that there have been untoward incidents."

"Such as what?"

"Well, for one thing, every place where the locals' original counterattack hurt us, there's been some variation on this sickness. Everybody is, has been, or will be, a good deal below par. Up to two-thirds or even more of the personnel have been knocked out at a time, and we were already well below strength—"

"Get to the point," snapped Maivail. "what's happened?"

"Due to overfatigue and sickness, sir, the Traffic Controllers have evidently gotten a little careless at times, and have varied the order of opening the cleared lanes according to a pattern, instead of by pure chance. The locals have promptly figured out the pattern and shot things in."

"How much damage?"

"Base 4 got hit with what must have been half-a-dozen destabilized hydrofusers, and lost twenty aircraft and their crews. The lanes through the inner barrier were closed, however.

"Base 6 had some kind of big local aircraft flash in, and pile up against the inner barrier. Fortunately, nothing happened.

"Bases 8 and 11 were bombarded with drums that burst apart to let out swarms of flying insects. These insects sting, and they have proved extremely troublesome. We've switched Groups 14 and 17 into the cleared zones of Bases 8 and 11, and set them down under protection of the 8 and 11 shields. The men, however, refuse to debark, because of these flying insects."

"Are the insects inside the inner barrier?"

"Unfortunately sir, they are. The inner lane was opened up according to rule, as soon as the outer lanes were all closed. The bugs came through. —It's chaos in there."

"Well—We should survive that, even if it *does* keep the correctors busy. Is that all?"

Angstat scowled. "Not quite, sir. There's still Base 9."

"What happened there?"

"Well— They were hard hit by the sickness." Angstat brushed away flies as they passed a cross-corridor. "And I suppose they got pretty careless. The Traffic Controller was found stiffened up with a horrible grin on his face, and it took six days in the corrector to bring him around."

"Six days!"

"Yes, sir. It's unprecedented,

sir. Well, while they were in this state, with everyone either getting in or out of a corrector, they forgot the cleared lanes completely, and a party of locals came in on a rope. Things got pretty ugly in there, sir."

Maivail moodily turned this event over in his mind. "They threw the locals out, didn't they?"

"*They* didn't. We shifted Group 15, and Group 15 threw them out."

"Then that's taken care of."

"Yes, sir. Except that now Group 15 has apparently caught the sickness. They're fabricating extra correctors at top speed, and they can hardly keep up with the demand."

MAIVAL thought it over. The enemy productive and war-making capacity was now pulverized in two-thirds of the war zones. However, roughly a quarter of the overall invading force had been knocked out in the initial enemy counterattack and the result of the various sequels was to tie up an additional three full Invasion Groups, plus various odds and ends. The effect was to reduce him to about fifty percent of his strength.

"Oh," said Angstat. "There was one other thing. I was about to tell you, sir, when you got sick."

"What's that?" said Maivail, frowning as he stepped over a

thick stream of ants crossing the floor.

"We've found out more about Shurlock Homes."

Maivail had forgotten that. He ducked a large greenish beetle winging down the corridor, then opened the door leading to his office.

Inside, several staff members were brushing away clouds of flies as they ate their lunch. There were flies in the air and on the table, flies landing on the regulation biscuit, flies swimming around in the regulation soup. The staff ate on stoically.

Maivail dismissed the triviality from his consciousness, reminding himself that warriors must be prepared to endure such irritations. He focused his thoughts on more important matters.

"Is this Homes the same as the Warlord?"

"No, sir. They are separate individuals. But we now have proof positive that the locals *do* have correctors, though evidently in limited numbers."

Maivail sat down at his desk. "How so?"

"Well, sir, we've calculated that this Homes is around a hundred years old, or possibly more. On this planet, seventy years is about the average life-span. Yet the comments of the locals show that they regard Homes as being possessed of full vigor and all his

faculties. It follows that he must possess the use of a corrector, to overcome the long-range cumulative fatigue."

Maivail brushed away a gnat. "Aren't we being excessively clever, Angstat? Why not simply *ask* the locals about this fellow?"

Angstat shook his head gloomily. "We've tried it. That brings on these choking fits. Then, afterward, when we listen to their conversation, first they talk as if he didn't really exist, then they talk as if he *does* exist. The best the interrogators have made out of that is that he's away on a long trip. We haven't got anywhere with that approach, sir."

Maivail said exasperately, "Listen, we've never *seen* this Homes. *We've never seen* the Warlord, either, though at least there has been *some* proof of his existence. Now, we've got trouble enough without complicating the situation with these mysterious beings, who haven't declared themselves, anyway. Let's forget this Homes, entirely. As for the Warlord, what we need to do is just keep an eye on the fourth planet. Once we have *these* people *here* conquered, then we can handle *him*." Maivail, still feeling fresh from his stay in the corrector, added decisively, "The devil with all these unseen entities." He waved away circling flies. "If you can't even see a thing, how can it hurt you?"

"Now, Angstat, we'll want to shift these remaining Invasion Groups to new cleared—"

The door burst open. "Sir! General Angstat!"

Maivail looked up in astonishment.

A staff member, spoon in hand and a haze of flies around him, pointed urgently into the other room. "Sir, an alien airship—"

Maivail snapped, "Exactly what is unusual about that?"

"This one, sir, matches the projections for the aircraft of that 'Warlord!'"

Maivail and Angstat catapulted into the next room and hurled staff members in all directions to get at the screen. Sure enough, there, gliding behind a nearby hill, was a fantastic airship, with short masts, rigging, weird guns fore and aft, a cabin amidships, and copper-colored warriors in steel and leather on the deck and at the guns.

"All right," snapped Maivail, glaring around at the apprehensive staff. "Now finally we'll get to the bottom of this. Order up Groups 2, 5, 16 and 18 to guard the planet against external attack. Groups 7 and 10 are to stand by in immediate reserve. Now, get every troop carrier and combat aircraft we can man out there, and bring me in as many of those soldiers as you can get your hands on!"

"Sir," quavered a staff member, "might it not be more prudent—"

Maivail lashed out and knocked him over a desk into the corner.

"Groups 3 and 13," said Maivail, "will act as reserve for Groups 4, 6, and 12, which will reconnoiter the planet for any further sign of these intruders. Headquarters Group will devote itself entirely to capturing those soldiers. *Move!*"

The staff sprang into action.

"Sir," said Angstat, as soon as they were alone in Maivail's office. "We may end up with *two* wars on our hands."

"That matter isn't exclusively up to me. And if it happens, I intend to find out about it before we get maneuvered into a nutcracker. Get the Planning Staff at work on the quickest route out of here."

"Yes, sir."

Maivail sat down and drummed his fingers on the desk. What if there *were* a Warlord, in control of the fourth planet. What if Shurlock Homes *did* exist, at the peak of his powers through possession of his own corrector? There across the room in a file case was a report that listed other formidable entities that seemed to live a charmed life. Some of these beings possessed their own armies. Some lived on distant planets but might roar in anytime with a space fleet. Some

could change their form at will, others had peculiar powers that it stopped the thought-processes to merely think of. What would he, Maivail, do if his men ran into a being that whizzed through the air under his own power, could not be dented by explosives, and squashed steel in his bare hands?

"Well," he told himself, "this is the acid test. We'll just see what this Warlord can actually *do*."

MAIVAIL settled back, noticed a new report in the "In" square on his desk, and picked it up. The title read: "Latest Conclusions on the Social Structure of the Local Inhabitants of 12Q2(2P6)11-3." Scowling, Maivail glanced through it, then straightened up hopefully. The report was written in fairly plain language, did not generally use four long words when one short one would do, and, on the surface, at least, gave no sign of that cold rebuff to the intruder upon the sacred mysteries. It appeared possible to *read* it, not decode it, and it even had an introduction at the beginning, and a summary at the end.

Eagerly, Maivail read: "From the facts given, namely: 1) The very high level of technical skill evidenced by the locals; and 2) The apparent existence of recognized 'Immortals' such as the fa-

mous Homes, and the self-admitted Immortal known as 'The Warlord,' it becomes evident that this planet logically *must* have hydrofusers and correctors.

"But it is equally clear, from the short lives of the average citizens, that these correctors are not generally distributed. Their existence is, in fact, not widely known, and the long lives of the Immortals are apparently explained away under one pretext or another.

"Why?

"This report concludes, from a careful study of the available translated documents, that a small group of exceptionally competent citizens maintains these devices for their own use, elects new members to join the group, and withholds knowledge of the device from all unqualified outsiders.

"This conclusion harmonizes obvious local facts with a basic proven rule of Science: *A hydro-fuser cannot be made except by those already in possession of hydrofusers and skilled in their use.* Also, correctors cannot be made save by the use of hydrofusers.

"The question immediately arises: 'Why are hydrofusers and the devices based upon them withheld from the bulk of the local inhabitants?'

"Two answers present themselves:

"1) The Immortals wish to gather the fruits of diversity which the lack of these ultimate tools forces the local inhabitants to develop.

"2) More basically, the nature of the bulk of these inhabitants is so chaotic, undisciplined, divided, violently ambitious, and short-sighted, that the possession of these ultimate basic tools would create chaos. To avoid disorganization, the Immortals restrict the ultimate tools to their own use, but permit the widespread use of secondary group-sources of similar but lesser potency.—Thus a degree of organization and harmony is maintained. If the ultimate tools were to be generally released by the Immortals, they would put into the hands of innumerable diverse, mutually jealous factions the means for each other's destruction and their own aggrandizement. Chaos could be expected to follow in a very brief time.

"We submit that this explanation is simple, logical, in accord with the known facts, and is therefore right."

Maivail felt a great wave of relief, which vanished with a shout from outside.

Angstat ran into the room.

Into the outer office burst copper-hued warriors in metal-and-leather, the cut ends of cords still fastened to their wrists, their holsters and scabbards empty,

but small pistols in their hands. There was no noise, no flash, but the staff and a few desperate guards went down right and left.

Maivail got over his moment of paralysis. "*Lock that door!*"

Angstat slammed it shut and locked it.

Maivail smashed a glass plate over a red button inset into his desk. He jabbed the button twice, and the blare of a horn resounded in an intricate pattern that commanded: "Retreat, fighting, to the ships."

There was a heavy crash against the door.

Maivail yanked a desk drawer open, tossed an extra gun to Angstat, jammed one under his own belt, picked up a hydrofuser from a little stand, swiftly reset it, and cut a hole through the wall into the corridor.

There was another heavy crash against the door, but now Maivail and Angstat were in the corridor.

Throughout the underground command center, the call resounded, and around Maivail and Angstat, the men were retreating, clutching guns, captured swords, broken chair legs, anything. At every cross-corridor, they shouted "Look out!—*The Warlord!*" Halfway to the ships, there was a panic as someone sighted a tall figure and screamed "There's Shurluk!"

Cursing savagely, Maivail and

his officers finally got the disorganized horde into the usable ships. Before anything else went wrong, Maivail slammed down the switch that relayed the order to open a lane in the outer screen. The relay performed its task, and Maivail ordered, "Lift ships!"

Then they were up and out of the chaos.

Angstat said, "Now wnat, sir?"

"I won't fight two planets at once," said Maivail, "but we are not beaten yet."

"Wouldn't it be better to get out of here before that space fleet turns up?"

"Not yet. We have to land one final blow."

XXV.

SWANBECK stumbled out into the open air.

"Ye gods, what a stench! How did they live in that slaughterhouse?"

"With no sense of smell," said Holden, "and a universal cure on hand, I suppose it's about what you'd expect."

The two men walked a long distance off, and looked back at the huge glistening doughnut-shaped barrier. Swanbeck cleared his throat.

"Here, at least, is one impregnable defensive position that *we* own. Complete with power-source, controls, cylindrical flying warships, and dozens of 'hy-

drofusers,' 'correctors,' and other fantastic devices, plus enough prisoners so we can wring the information out of them, and find out how to use these things."

Holden nodded. "What a pest-hole it is, though."

Back at the Barrier, a big bundle was being lowered down on the end of a rope. It was easy to imagine the grisly load within. Several men dropped out and staggered off several hundred yards to get a breath of air.

"Okay," said Swanbeck, "now let's get the news back to Denver." He faced up the long slope, beckoned, and pumped his arm up and down.

There was a roar, and a Jeep came down the slope. They got in, and heaved and crashed up the hill, down the other side, and along a long dusty road, with empty scabbards clattering, and metal ornaments digging into their flesh. On the way, Swanbeck said with relief, "Those boys are on the run. We're over the worst of this."

Holden struggled to pinpoint just what it was about the statement that bothered him. When they got out of the Jeep, Swanbeck was confident, and Holden had his fingers crossed. They walked away from the road along the rocks, careful to leave no trail that would give away their hiding place. The Jeep drove on.

They were no sooner inside

than a worried corporal hurried up to Swanbeck.

"Sir, Denver's on the line. They got a hot coal down their neck."

Swanbeck, scowling, picked up the phone. "Hello? . . . Yes, it came off beautifully . . . No . . . No, sir. Perfect . . . They've what? Lifted ships? . . . Yes! Yes, sir . . . What? . . . What's that, sir?" Swanbeck's buoyant tone faded into incredulity. "What do they expect to gain by *that*? . . . Yes, sir . . . Well, what can we . . ."

Holden waited for the worst. Swanbeck put down the phone.

Holden said, "Now what?"

"Let's go outside. Maybe it's started here now."

"Maybe what's started here now?"

"Their damned clincher."

Holden swallowed. He was afraid to ask anything more.

Once outside, Swanbeck gazed up at the sky. "There's one."

Holden squinted. Forty or fifty feet overhead, a little white piece of paper drifted down.

They watched it descend, then Swanbeck picked it up. "Yep. That's it."

He handed it to Holden, who read:

—Fellow Creatures—

For ages you have been victimized by your leaders, who have possessed, unknown to you, marvellous tools capable of making

each of you healthy, rich, and powerful beyond your dreams.

They have suppressed these tools.

We have invaded, not to conquer you, but to smash the murderous grip of these leaders at your throat. *We are determined that these marvelous tools shall be yours . . .*

To prove what we say, we have left on your planet many of *our own tools*, and we are preparing simplified Manuals in your own languages to show you how to use them.

We are your friends.

We make no charge, we put no price on these precious gifts.

You can be forever healthy, you can make what you will, you can conquer gravity, go anywhere, have perfect privacy, amass riches in quantities you have never dreamed of.

Only, you must see that treacherous leaders do not again take away from you what is yours.

* * *

Holden looked up dizzily.

Another paper was drifting down a hundred feet away.

Swanbeck said sourly, "Look there."

An olive-colored case, apparently degravitized to make it light and buoyant, drifted to the earth near the road, and tumbled slowly along in the wind.

Swanbeck and Holden caught it, opened it up, and found the familiar device inside, complete with Simplified Manual.

Holden opened the Manual, and read aloud, "How to Create A Privacy Shield, How to Make Gold, How to Reproduce Food Without Work, How to Make a Corrector and Be Forever Healthy, How to Defend Yourself, How to Make *More* hydrofusers, and How to Blow Up Your Enemies . . ."

Dizzily, Swanbeck and Holden looked at each other.

XXVI.

DIONNAI Count Maivail, moving slowly at high altitude as the stream of hydrofusers poured out of his ships, explained the situation to Kram Baron Angst.

"Offer a man, long deprived, his fondest wish, and will he refuse it? First, there will be fighting because there aren't enough hydrofusers to go around. Then there will be all kinds of private sanctuaries where they can do whatever they want, because of the shield, and can escape the most obvious consequences, because of the correctors. Only after ages of working at cross-purposes, and after exhausting all manner of appetites and delusions, will they begin to see the flaws. Meanwhile, they will for-

get their other skills. The result, Angstat," he said enthusiastically, "will be utter stagnation."

A sudden thought occurred to Maivail. He didn't voice it. But a glance at Angstat's blank wondering look showed that it had occurred to him, too.

Dumfounded, Maivail thought, "Could something like this have happened long ago to us?"

XXVII.

SWANBECK, Holden, Delahaye, and Higgins, crouched over the instruction books. Off to one side, a bilingual captain with a gun in his ribs eagerly poured out a flood of information from the full-sized, unsimplified Manual.

Half-a-mile away, a few iridescent small-sized half-globes wondered off across the valley, momentarily flickering out from time to time as their owners paused to look around.

Swanbeck glanced up and swore. "Look at them! Over the hill in broad daylight! Unpunishable desertion!"

Holden pointed to the Manual. "How do we figure *this* out. Less talk and more thought."

Swanbeck subsided angrily, took a final cold look at the walking AWOL's under their privacy shields, and returned to the instructions with a will. What had to be done, he reminded himself,

was to somehow figure out roughly just what was inside that case, and build the thing into the system of accumulated knowledge before it turned into a craze and *replaced* that knowledge.

And, he told himself, no matter how rough the road, *never give up*.

XXVIII.

DIONNAI Count Maivail squinted at the stacks of translated human documents. The fleet itself was well out now from the dangerous planets, but Maivail could see that the permanent superiority of his people would be assured only when they added the captured know-how of the earthmen to their own Science.

Somehow, when he got back home, Maivail was going to have to put this idea across without getting disassembled for heresy in the process.

For now, his problem was just to absorb the substance of a few dozen of these translated documents, so he could get a general picture of what passed for science on this planet. That would enable him to present his argument logically when the time came. Surely, he told himself, there should be nothing hard about *that*.

He massaged his throbbing

brow, closed this latest report, shoved it aside, and selected a fresh one.

Time crept by.

Isolated fragments of information from various reports swam through Maivail's consciousness:

"... elevated to 350° F, with agitation to maintain a uniform temperature throughout. This produces first-settle plaster. This is the half-hydrate $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$. The anhydrous second-settle plaster is produced by..."

"... a low-pass filter for the noise, assuming, that is, that the signal can be satisfactorily approximated by the expansion $K_0 + K_1t + k_1t^2 + \dots K_nt^n$, in which..."

"... 4,000 to 5,000 psi. The 70-30 mix can be fired underwatered, or caked to..."

"... the heavier type of these two kinds of mesons has a mass 273 times that of the electron; this is the *pion*. The lighter *meson* has a mass 207 times that of the electron; this is the *muon*. The *pion* and the *muon* may both be either *positively* or *nega-*

tively charged. Spontaneously, a charged pion (if, that is, it is not previously captured by an atom) changes into a..."

Maivail looked up dizzily. He promised himself that if this headache got any worse, he would head for the nearest corrector. In fact, it might not be a bad idea to have one set up right here in his office, where it would be handy.

Doggedly, Maivail pulled out the next report, and opened it at random:

"... if $f(x)$ is finite and single-valued in the interval $\pi > x > -\pi$ and has only a finite number of maxima, minima, and discontinuities in this interval, then..."

Maivail's head suddenly threatened to blow wide-open, and he lurched to his feet.

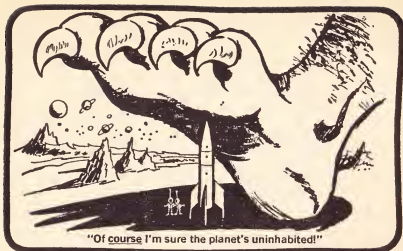
He knew the predicament he'd created for the humans was tough. Managing things on the Plateau was no easy job.

But something told Maivail that relearning how to climb was worse yet.

THE END

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The Man Who Discovered Atlantis

By ROBERT SILVERBERG

IT is a frustrating thing to be the unimportant relative of a famous man. All your life you are haunted by the accomplishments of your celebrated ancestor. One such man was Paul Schliemann, grandson of the great archaeologist Heinrich Schliemann.

The elder Schliemann was a remarkable man. Penniless at nineteen, he made use of his unusual gift for languages to build a successful business career. By the time he was 33 he was not only a millionaire but was fluent in 15 languages. Archaeology was his great passion, and Homer's Troy his chief obsession. At the age of 46, Heinrich Schliemann retired from business and went in search of Troy.

Most authorities then felt—it was 1868—that Homer's poems were pure fantasy, and that there had never been any city of Troy. Schliemann, with the lines of the *Iliad* blazing in his mind, dug into a hill called Hissarlik in Asia Minor, found not one buried city but seven, one atop the other, uncovered fabulous golden treasures, and forced the experts to agree that he had indeed rediscovered Troy.

Schliemann then went on to excavate at Mycenae, the city of King Agamemnon, and at other ancient Greek sites.

All Europe knew the name of Schliemann. And his grandson, Paul, had only to mention his name, and he would draw the response: "Ah, yes. Are you relat-

ed to the Schliemann who dug up Troy?" It became irksome. Paul looked about for some way to establish his own reputation but, unfortunately, he seems not to have had his grandfather's abilities either as an archaeologist or as a scholar. So he made his mark on the world in another way.

ON October 20, 1912, the New York American, a flamboyant newspaper, published a long article under the byline of Dr. Paul Schliemann, and headlined, *How I Discovered Atlantis, the Source of All Civilization.*

Paul Schliemann did not claim that he had actually discovered the site of the fabled lost continent. He merely let it be known that he was in possession of definite proof that Atlantis had really existed. Just as men once had called Troy a myth, so too did they still regard Atlantis as imaginary. But Paul Schliemann assured the readers of the New York American that he lost continent was no myth. His authority for the statement he said, was no one else than his illustrious grandfather. Paul Schliemann wrote:

"A few days before my grandfather, Dr. Heinrich Schliemann, passed away at Naples, Italy, in 1890, he gave a heavy sealed envelope to one of his closest friends. This envelope was marked: 'To be opened only by a

member of my own family, if he pledges himself to devote all his life to the work sketched herein.'

"Only one hour before his death he asked for paper and pencil and wrote with trembling hands: 'Secret addition to the contents of the sealed envelope: Break the owl-headed vase. Study its contents. They refer to Atlantis. Excavate east of the ruins of the Temple of Sais and among the tombs in Chacuna Valley. Important! You'll find proof of my theories. Darkness is coming fast—farewell!'

"He then ordered that this message also be delivered to his friend, who deposited it in the vaults of a French banking firm. After I had studied for several years in Russia, Germany, and the near Orient I decided to continue the work begun by my famous grandsire.

"In 1906 I gave the pledge and broke the seals of the letter. It contained numerous photographs and documents. The first of them was marked: 'Whoever opens this has to pledge himself to finish the work I had to leave unfinished. . . . I deposited a sum of money that will be sufficient to finish the work in a French bank. The money is at the disposal of the person that shows the enclosed receipt.'

Paul Schliemann told of his painstaking research. He traced the owl-headed vase among his

grandfather's huge collection, and broke it open. Inside, he said, he discovered some unusual square coins made of an alloy of platinum, aluminum and silver. There was also a square piece of silvery-looking metal that bore the inscription in Phoenician characters, "Issued in the Temple of the Transparent Walls."

Schliemann pointed out that the inscribed metal plaque was much larger than the diameter of the vase's neck. He had no idea how it had been put inside the vase. There were other curious things in the vase, too: objects made from pieces of fossilized bone and from clay. Many of them bore the inscription, in Phoenician, "From the King Cronos of Atlantis."

ATLANTIS! "You can imagine my excitement," Schliemann wrote. "Here was the first material evidence of that great continent whose legend has lived for ages!" The article went on to say that Heinrich Schliemann had examined certain vases, bone objects and pottery artifacts at the Louvre, in Paris, that had come from Tiahuanaco in the southern highlands of Peru. And, said Paul Schliemann, his grandfather had discovered that the Tiahuanaco relics were identical in every respect to the "Atlantis" relics supposedly found at Troy. The only difference was that the

Peruvian material lacked the Phoenician inscriptions that mentioned Atlantis.

By bringing Tiahuanaco into the story, Paul Schliemann added a fresh aspect of mystery. Tiahuanaco is a valley about 13,000 feet high in the Peruvian Andes. It is bleak, nearly treeless, eternally cold. Strange monuments are found at Tiahuanaco. Strangest of all is the Gateway of the Sun, a vast gate standing alone and leading nowhere. It is carved from a ten-ton block of lava, and is twelve and a half feet wide, ten feet high. A doorway cut in its center is surrounded by weird, alien-looking carvings of bizarre figures. Nearby is a triangular stone pyramid, 50 feet high and almost 700 feet along each side. There is also a stone courtyard more than 400 feet square, and a red sandstone figure 24 feet high. All this is eerie and even frightening amid the desolate surroundings.

Modern archaeologists think that the Tiahuanaco monuments are the work of Peruvian Indians who built them before 1000 A.D., several centuries prior to the Inca conquest of Peru. But, because of their unusual and almost unearthly style, the Tiahuanaco ruins have been the subject of many fanciful theories. Some imaginative people see Tiahuanaco as the site of a settlement of beings from space; others

claim it is the place where mankind originated; there are those who say that Tiahuanaco once was a Pacific island, lifted to its present great height by some colossal upheaval of the earth. And some thought its monuments were akin to those of ancient Egypt.

Along came Paul Schliemann now to suggest that Tiahuanaco was the place where the people of Atlantis settled after the destruction of their continent. The so-called "Egyptian" features that many people claimed to see in the Tiahuanaco monuments, Schliemann said, could be explained by the fact that some Atlanteans had gone to Egypt and others to Peru. That was why such widely separated parts of the world seemed to have an art style in common.

The younger Schliemann claimed that he had devoted the years from 1906 to 1912 to an intensive program of research. He said he had been to Peru and Egypt, to the Mayan ruins of Central America, and to archaeological museums all over the world. He asserted that a Buddhist temple at Lhasa, Tibet, had supplied him with a 4000-year-old Chaldean (Babylonian) manuscript telling how the Land of the Seven Cities—Atlantis, apparently—had been destroyed by earthquake and volcanic eruption after the star Bel fell to

earth. According to the manuscript, "Mu, the priest of Ra" had warned the Atlanteans of their fate, but they had refused to listen in time. Only a handful of the doomed continent's people had escaped to Egypt and to South America when the cataclysm occurred.

Schliemann let it be known that he was still at work on the mystery of Atlantis, and soon would publish a book giving further details. "But if I desired to say everything I know," he concluded, "there would be no more mystery about it." The archaeological discovery of Atlantis, he implied, would soon take place—ending thousands of years of speculation and controversy.

THE Atlantis legend itself goes back to about 355 B.C. The philosopher Plato, then in his seventies, was nearing the end of his career. His great teacher Socrates had been dead for 45 years, but Plato had kept Socrates' name alive in a series of literary works, the Socratic dialogues, which used Socrates as a character in dramatic sketches of philosophical debate. Late in his life Plato wrote a dialogue called *Timaeus*, which was set in 421 B.C., when Socrates had been about fifty and Plato himself only a boy. The chief characters of the dialogue were Socrates and two of his friends, Timaeus

and Critias. At one point in the discussion, Critias tells the story of Atlantis, which he says has been handed down in his family since the time of his great-grandfather Dropides.

Dropides, Critias says, had known Solon, the famous law-giver of Athens. About 550 B.C., Solon had visited Egypt and had spoken with the priests of Sais, a city at the head of the Nile Delta. Solon had begun to tell the priests some legends of early Greek history, but the priests had laughed at him. "You do not even know your own history," they told Solon. "Your records have been destroyed by fire and flood." Only in Egypt had the true accounts of ancient days been preserved, and the Egyptians knew stories of Athens' greatness in the remote past.

Solon begged for details, so Critias says. The Egyptian priests told him how Athens had been great as far back as 9,000 years before. "Many great and wonderful deeds are recorded of your state in our histories. But one of them exceeds all the rest in greatness and valor." A mighty enemy had come out of the Atlantic, entering the Mediterranean through the Pillars of Hercules (today the Straits of Gibraltar.) These invaders came from an island larger than Asia and Africa put together, called Atlantis.

The Atlanteans tried to subdue Greece, Egypt and all the other countries of the world. "And then, Solon," said the priests, "your country shone forth. . . . Being compelled to stand alone, she defeated and triumphed over the invaders." Soon after this great victory, "there occurred violent earthquakes and floods, and in a single day and night of rain . . . the island of Atlantis disappeared, and was sunk beneath the sea." That explained why the Atlantic was so shallow and muddy beyond the Pillars of Heracles—for lost Atlantis lay just beneath its waves.

SOLON, returning to Athens, had told the story of Atlantis to Dropides, who wrote it down and passed it to his descendants. "My great-grandfather, Dropides, had the original writing, which is still in my possession," Critias declares. And Socrates comments, "This is no invented fable but genuine history."

In a second dialogue, *Critias*, Plato provided some further details about this continent that had been destroyed 9,000 years before his time. It had been, he declared, a place of great splendor and wealth, with soaring palaces and vast canals and majestic bridges. One temple, 600 feet long and 300 feet wide, was entirely covered by silver, and its roof was of gold. Within, the ceil-

ing was fashioned from ivory inlaid with silver and gold. There were gardens and race-courses and parks, and superb harbors thronged with ships, and wealth beyond measure. And all this had gone to the bottom of the sea in a single day and night.

Plato had simply been telling a pretty story. He had always been a gifted and imaginative writer and, since it had suited his philosophical purposes to speak of Athens' past grandeur, he had invented glorious Atlantis—which he said Athens had conquered. Neither Plato nor the Egyptian priests at Sais had any real information about events of 9500 B.C.; in actuality, Egypt herself had still been a primitive land then, and Athens had been unknown.

The fictitious nature of Plato's Atlantis was made evident by a remark of his one-time pupil, Aristotle. Speaking of Plato and of Atlantis, Aristotle said: "He who invented it also destroyed it." But the appeal of Plato's imaginary palaces and gold-roofed temples was powerful. Gradually Atlantis began to pass from fiction into fact. Plato's fanciful story was taken at face value. The great surge of exploration that began in the 15th and 16th centuries saw many men out looking for Atlantis. Some said that the scattered islands of the Caribbean were the remains

of the lost continent. When Europeans reached South and Central America and found the highly developed civilizations of the Aztecs, Incas, and Mayas, the suggestion arose that they had descended from refugees escaping the destruction of Atlantis. That idea took firm hold.

The Spanish *conquistadores* shattered those three great civilizations before much could be learned about them. But one of those who helped in the destruction was Diego de Landa, Bishop of Yucatan. Landa, convinced that the books of the Maya Indians were works of the devil, rounded up all he could find and burned them. He did, however, take the trouble to make a record, inaccurate and confused, of the Mayan alphabet. Landa's book remained hidden away in a Spanish library until 1864, when a French scholar stumbled across the bishop's dusty manuscript. This man, Charles-Etienne Brasseur, immediately tried to decipher one of the few Mayan books that had survived Landa's bonfire.

HE emerged with an absurd-sounding description of a volcanic eruption. It began, "The master is he of the upheaved earth, the master of the calabash, the earth upheaved of the tawny beast (at the place engulfed beneath the floods)—it is he, the

master of the upheaved earth, of the swollen earth, beyond measure, he the master . . . of the basin of water." Not content with this gibberish, Brasseur provided another scholarly contribution. Going over the Mayan text, he found two symbols for which he could not account. They vaguely resembled the letters M and U of Landa's incorrect Mayan alphabet. Brasseur decided that they must be the name of the land destroyed by the eruption: *Mu*.

All these findings are known today to be nonsense. The Mayan book Brasseur "translated" is actually a treatise on Mayan astrology, not a description of a volcanic eruption. And Bishop de Landa's alphabetical interpretations were mostly wrong, though he did set down authentic Mayan letters.

Brasseur's work, however, inspired another French pseudoscientist to carry the quest for *Mu*—the Atlantis of Plato—a step further. He was Augustus le Plongeon (1826-1908), a physician who lived in Mexico. Le Plongeon visited the Mayan ruins in Yucatan which had been discovered in the middle of the 19th century. He found pictures on the temple walls of the Mayan city of Chichen-Itza. They struck him as a portrayal of the destruction of Atlantis. Using Brasseurs' translation of the Mayan

text, and adding some interpretations of his own, le Plongeon came up with this account of the catastrophe:

"In the year 6 Kan, on the 11th Muluc in the month Zac, there occurred terrible earthquakes, which continued without interruption until the 13th Chuen. The country of the hills of mud, the land of *Mu*, was sacrificed: being twice upheaved it suddenly disappeared during the night, the basin being continually shaken by the volcanic forces. Being confined, these caused the land to sink and to rise several times in various places. At last the surface gave way and ten countries were torn asunder and scattered. Unable to stand the force of the convulsion, they sank with their 64,000,000 inhabitants 8060 years before the writing of this book."

Le Plongeon also claimed to have found and translated a romantic tale of the love of Prince Coh and his brother Prince Aac for Queen Moo of *Mu*. Prince Coh was successful in winning Queen Moo's hand, but was murdered by the disappointed Prince Aac, who seized the throne from Queen Moo. Then the earthquake struck, and the continent of *Mu* went under. Queen Moo managed to escape to Egypt, where she built the Sphinx as a monument to Prince Coh, and founded the Egyptian civilization. Other *Mu*-

vians reached Central America and became known as the Mayas.

NO doubt the fantasies of Brasseur and le Plongeon were familiar to Paul Schliemann when he wrote his newspaper piece in 1912. He rolled everything into one super-fantasy—Atlantis, Mu, Plato, le Plongeon, the Mayas, Tiahuanaco, the Phoenicians, and much else—and tied it all up by linking it to his grandfather's work at Troy.

Now, respectable scientists had been laughing at Brasseur, le Plongeon, and other advocates of Atlantis for years. But suddenly a man bearing the revered name of Schliemann had appeared insisting he had proof that Atlantis really had existed. The experts were startled. Had Heinrich Schliemann really discovered references to Atlantis during his excavations at Troy? And would Paul Schliemann dare to take his grandfather's name in vain by shamelessly dragging him into a hoax?

The first reaction to Paul Schliemann's article, then, was one of surprise but not of scorn. Then the experts began to look a little more closely at the story.

Paul Schliemann's mention of a temple in Tibet aroused suspicion. Many of the wilder proponents of Atlantis had included Tibet in their fantasies, because it was a remote and mysterious

place well suited to enhancing an occult story. How had Schliemann contacted the Buddhist priests of Tibet? And where was his "Chaldean manuscript"? The Chaldeans—that is, the Babylonians—of 4000 years ago had not had "manuscripts" anyway. They had written on tablets of clay.

Those coins and plaques made of platinum, aluminum, and silver caused trouble too. Platinum was an extremely rare metal, while aluminum in its metallic form had been unknown until the 19th century. Aluminum would have been virtually impossible for the ancients to produce, and no one could see why they would have gone to the bother of using it for coins.

There were other archaeologists who wondered why Heinrich Schliemann had kept his wonderful find a secret. The elder Schliemann had never been given to secrecy; on the contrary, he had usually announced every important discovery right away, trumpeting it in loud, clear tones. And there were those who thought it odd that no one but Paul Schliemann had ever seen the mysterious platinum-silver coins with the inscriptions referring to Atlantis. Nor did the curators of various museums recollect any visits from Paul Schliemann in the past six years, when he had supposedly been doing world-wide research.

PAUL Schliemann remained silent while these questions were being raised. That, too, was suspicious. Still, no one branded him as a hoaxer—not yet. The checking went on. One archaeologist, Alexander Bessmertny, went to the man most likely to know the truth: Wilhelm Dorpfeld, who had taken part in Heinrich Schliemann's excavations. Bessmertny wrote to Dorpfeld and got this answer:

"I gladly inform you that I have already been asked about the report made by Dr. Paul Schliemann, though I do not recall by whom. As far as I can remember, I replied at that time as I have to reply to you, too, that Heinrich Schliemann did not work extensively on the Atlantis problem, at least not to my knowledge. I never heard about activities concerning Atlantis from him, although I was his assistant from 1882 to 1890, the year of his death. It is true that we talked about Atlantis occasionally, and I think it likely that Heinrich Schliemann may have collected notes about Atlantis.

But I do not believe that he carried out any work on that theme himself."

Now was the time for Paul Schliemann to come forth with solid proof: the coins, the inscribed plaque, his book on Atlantis, anything. But he maintained his silence. He had nothing at all to say. The game was up. Goaded by his need to seem important, he had invented the whole story out of thin air. He had no proof. His book never appeared. This pathetic man had had his moment of public attention; for a brief while his name had been on people's lips as once his grandfather's had been. But then he vanished into the obscurity from which he had come.

The lost continent of Atlantis remains lost today, though the noisy followers of le Plongeon and Brasseur still think it will be discovered some day. If Plato, who loved truth above all else, had known what men would make of his airy fable, he quite probably would never had set it down for the gullible to read.

THE END



Calling Dr. Clockwork

By RON GOULART

Had occasion to file any medical insurance claims lately?

Any trouble with doctors? Nurses? Investigators?

Watch out next time you visit a friend you know where.

ARNOLD Vesper nudged the flower vending machine with the palm of his hand. The dusty green cabinet hunched once and a confetti of yellow rose petals snapped out of the slot and scattered on the parking lot paving. Vesper gave the machine a shy kick. His credit card whirled back out the money intake and he caught it. Turning away Vesper pressed his lips angrily together for an instant and then hopped onto the conveyor walk that led to the visitors entrance of the hospital.

He didn't even really know Mr. Keasby. So actually the flowers could be skipped. Vesper wished he wasn't so considerate of his father's wishes. His father lived in a Senior Citizens Sun Tower down in the Laguna Sector of Greater Los Angeles. When he'd

heard his old friend, Keasby, was laid up in an Urban Free Hospital he asked his son to pay a visit. So here Vesper was, thirty years old, still doing errands for his father. Well, the flowers could really be skipped.

Urban Free Hospital #14 was a pale yellow building. It gave the impression that its whole surface was vaguely sticky. Keasby should have taken a bigger chunk out of his salary for insurance and then he wouldn't have ended up in a UFH. Vesper hoped the old man wasn't full of stories about organizing the food scenters union back in 1990. His father was.

The android guard was one of the fat pink models. "Visitors hours end sharp at eight. Be sure you get out, don't make trouble for me so I have to come and get

you out special. Is that clear?"

"Fine," said Vesper. "Where's Ward 77?"

"Go right, turn left. Corridor four, then elevator G. Up to three, left again, then right. Move along now."

Vesper went down the stationery corridor, turned left at its end. The corridors that appeared off this one all had letters and not numbers. Vesper continued, slowing his pace.

In front of him a portion of the floor slid away and a bell began ringing up above him. A wheeled stretcher, an automatic one, came up in front of Vesper. The patient on it was a heavyset middle aged man. He moaned.

The stretcher clicked and moved ahead. The ringing stopped. Vesper stayed still, giving the stretcher a chance to get going. But as he watched the thing zagged into the corridor wall. A bell rang again as the patient bounced up and then snapped off the wheeled cot. Vesper ran to help.

His feet tangled in the covering sheet. The sheet was dirty grey and spotted. Vesper had to kneel to keep from falling. He almost touched the fallen patient, then noticed that there was blood on the man's chest now. Vesper's stomach seemed to grow out like the ripples from a rock dropped in a pool. He began to swallow and his ears gave him a severe

pain. He tried to avoid the bloody man when he pitched over and passed out.

THE doctor was a human. He had a slightly pointed head with hair coming down in a strip onto his forehead like a plastic doormat. He had no chin. "Don't I know how you feel," he said to Vesper.

This seemed to be a ward. Five beds side by side, grey sticky walls. Vesper, undressed and wearing a pajama top someone else had already worn, was in one of the beds. The other four cots were empty. It looked like late night outside the one high window slot. "Is that man all right?"

The doctor pursed his lips. "Let's not talk about him. It gives me gooseflesh thinking about that. I'll tell you frankly that blood makes my stomach go whoopsy, too."

"Well, how am I then? I know I'm okay."

The doctor was sitting in a straight chair next to Vesper's bed. "My name is Dr. William F. Norgran, by the way. Why don't you give me all the info on your case?"

"I just fainted, didn't I?" Vesper elbowed up to a sitting position. "See, I came to visit a Mr. Keasby in Ward 77. He's a friend of my father. My father doesn't get around much. He lives in a

Senior Citizens Sun Tower down in Laguna Sector."

Dr. Norgran shivered. "Old people gave me the willies."

Vesper said, "I'd like to get my clothes back and go on."

"Let me level with you, Mr. . . . ah . . ."

"Vesper. Arnold Vesper."

"Mr. Vesper, whenever somebody is brought in here to Urban Free Hospital #14 he has to be checked out. This is a charity hospital. We have to be thorough. It's our obligation to the public."

"But I have Multimedical. I work in the Oleomargarine Division of one of our largest motivational research companies. I'm covered even if I were sick. I wouldn't have to come to an UFH."

"Yes," said Dr. Norgran, clearing his throat. "You've had some sort of seizure possibly. We can't be too careful in cases of this sort." He shifted in his chair. "Listen. Is that motivational research as much fun as it sounds? I'll tell you why I ask. I wanted to major in that at school but my folks wanted me to be a doctor. Here I am, stranded in a freeby hospital. During my internship at Hollywood Movie Hospital I kept fainting and getting sick headaches. That helped stick me here."

"It's pretty tough getting into motivational research without a degree in it," said Vesper, look-

ing around the room. There did not seem to be any lockers or closets. "Where exactly are my clothes?"

Dr. Norgran shrugged. "One of the android orderlies whisked them away someplace. Frankly, Mr. Vesper, it's hell being a human doctor here. You don't have a fighting chance. Particularly if you happen to feel queasy about blood. As you may know the Head Physician at most Urban Frees is an android. And old Dr. Clockwork is a real toughie to work under."

"Dr. Clockwork?"

"We just call him that. The few humans here with the sense of humor enough. Because of the way he whirs and clanks sometimes. His official name is Medi/Android A/12 #675 RHLW. An old devil, believe you me."

VESPER nodded. "As soon as you examine me I can go. You can understand, being that way yourself, that I just fainted because of the blood. Did that man die?"

Dr. Norgran gave a quick negative wave of his hand. "Let's not dwell on him. Mr. Vesper, you can really do me a favor. I'll confess something to you. I'm fairly sure it's only a temporary condition. The thing is, I've developed this absolute horror of touching people. Has nothing to do with you. It's my nag."

"I'm afraid I don't follow you."

"I'd prefer to let Dr. Clockwork look at you. I get so really creepy crawly lately if I have to examine someone. Silly of me, isn't it?"

"Why don't you just let me go?"

The doctor shook his head. "No, no. You're already being processed. If you belong to Multi-medical then the office andies have already got your MM card from your effects."

"Effects are what dead people have."

Dr. Norgnan blushed. "Sorry. Don't let anything worry you, Mr. Vesper. The MM people and our staff are on top of this. You concentrate on getting a good night's sleep."

Vesper started to swing out of bed. "Night's sleep?"

"Dr. Clockwork spends his nights up in Isolation 3. He can't see you until morning."

"My job."

"The hospital will notify. Anyway, Mr. Vesper, you'll more than likely be out of here before Coffee I tomorrow. Do you have a family?"

"I'm divorced. I live in a rancho tower over on Gower in the Hollywood Sector. A two room suite."

"Lucky," said Dr. Norgnan. He touched something under the bed and the bed pulled Vesper back and gave him a shot in the

left buttock. "To help you sleep. See you tomorrow. And let's hope nobody else makes any unpleasantness tonight. I'm on duty till the wee hours."

"Wait," said Vesper, falling asleep.

THE whirring awakened him. Vesper saw a wide shouldered android in a frayed white coat watching him. The android had a square thrust-jawed face and a convincing head of backswept grey hair. Humor wrinkles had been built in at the eyes and mouth. "How are we feeling?" asked the android in a warm familial voice. "I'm Medi/Android A/12 #675 RHLW. The young fellows around here call me Dr. Clockwork." He winked. "I'm not supposed to know about it." The winking continued and Dr. Clockwork made a ratcheting sound and his eyeball, the right one, popped out. "The things we old timers have to put up with," he sighed and stooped, vanishing under the bed. "I've got it."

Vesper sat up. "Dr. Clockwork," he said as the android physician, two eyed again, rose up beside him. "I'm in perfect shape. I simply fainted last night while on the way to visit an old friend of my father's. A Mr. Keasby in Ward 77. I'd like my clothes. Then I'll leave."

"Open your mouth for a second. Fine." The android got a

grip on Vesper's jaw. "Nothing is simple in the doctor business. That's one thing I learned as an old-fashioned suburban practitioner. Hmm."

"I'm probably late for work." The window indicated it was along into mid morning.

"Work, work," said Dr. Clockwork. "We all of us rush and hurry. Well, now." He began tapping Vesper's chest. "Breathe through your mouth. I see, I see."

"My father was in the food scenting field for thirty nine years before he retired," said Vesper, between inhalations. "As I understand it he and Mr. Keasby worked side by side for several decades."

"Roll over on your stomach."

Vesper obliged. "They don't seem to know where my clothes are."

"Nothing escapes my attention in UFH #14 here," said Dr. Clockwork. "When your clothes are needed old Dr. Clockwork will round them up." He ran a finger along Vesper's spine. "Much history of fainting in your family?"

"I don't know. I only fainted because I saw all that blood." He glanced back over his shoulder. "Did that man survive?"

"Well, well," said Dr. Clockwork, pinching Vesper's right buttock. "How often do you faint?"

"Not often."

"What's your idea of often, young fellow?"

"Three times in my life."

"I see." The android made a bellows sound and whirred in a different way for a moment. "For lunch today tell your nurse to give you gruel and some skim milk. Then I'll want to run tests on you down in Testing 4 this afternoon."

"But I have to leave."

"Not in your condition."

"What do you mean?"

"Don't forget the gruel. Relax now." The doctor started for the door. Half way there he developed a severe limp. He swung out into the hall and in a moment there was a crash.

The bed wouldn't let Vesper up. He twisted around and spotted a switch marked *nurse*. He stretched and flicked it. This produced a humming in a speaker grid next to the switch. In a few minutes a female voice said, "Ward 23 is supposed to be empty. Who's that in there?"

"Never mind. Dr. Clockwork's fallen over in the hall."

"He's always doing that. Now who are you?"

"I'm Arnold Vesper and I want to get out of here."

The grid grew silent and did not reply.

DR. Rex Willow's lower lip made his orange colored cigar angle up toward his soft

nose. He was human apparently and he was sitting on the Vesper's bed when Vesper came to from an enforced afternoon nap. Willow explained that he was the doctor sent over by Multimedical insurance. After he'd asked Vesper what he thought was wrong with him Dr. Willow said, "Those kids over at your office really like you. Here you go." From under his suit coat he produced a small carton.

Vesper took it. "I got skipped over for lunch today. The nurse won't answer me on the com system. I hope this is food." He rested his hand on the box lid. "What I really hope is that you'll get me out of here."

"Time enough to worry later, Arnold."

The box contained get well cards. Two dozen identical ones. Each signed by a member of the oleomargarine team. "All the same," said Vesper, putting the box on his bedside table.

"Similar sentiments can take similar forms." Dr. Willow jumped off the bed. "Good talking to you, Arnold. Sign this punch form set for me and I'll skat. I have to hustle over to some of the big pay hospitals in the better sectors." He gave Vesper a small deck of miniaturized punch forms.

"How come you're here at all? I thought this was a free hospital."

"Multimedical goes everywhere. It's not a bad hospital if you're down and out, Arnold. Or have an emergency like yours." He pointed. "Sign on the red line. On the blue line on the forms where it's blue."

"My pen's in my clothes."

"Use mine."

Willow's pen said Multimedical on it and Get Well Quick. Vesper asked him, "Can't you arrange to get me out?"

"Not if your head physician is dead set against it."

"I don't even have a phone in here. Can't you at least get me one? I really should have a phone."

"This is a charity hospital, Arnold, not a resort. When you are up and around you can hunt down a phone. I spotted a phone cubicle in the visitor's lobby. Sign."

Vesper signed. "Have you talked to my doctors here?"

"Well, of course. Dr. Norgran is a fine boy. Medi/Android A/12 #675 RHLW is the best android in any of the freeby hospitals."

"When he was in here this morning his glass eye fell out."

"A man's handicaps don't reflect his abilities."

"But he's a machine."

"If you don't finish signing soon I'll have to put more credit script in my landing strip meter, Arnold."

"Okay." He completed the

forms except for the line about his mother's hobbies. Willow said that was optional anyway. As the insurance doctor left Vesper called, "How about telling them to feed me?"

"All in due time," said Willow, hurrying.

TOWARD evening two androids wheeled in a man named Skeeman and put him in a bed two down from Vesper. Vesper found out the name because the man, who was small and old and yellowish, kept telling the orderlies, "Call Dr. Wollter and say Milton Skeeman's had another one." The andies nodded, smiled and let the bed put Skeeman to sleep.

"When's dinner?" Vesper asked them.

"No mouth from you, freeloader," said one.

"Wise patients are the worst kind. Want to eat, eat all the time."

"And I want to get up and go to the bathroom."

"Your big expensive bed will take care of that."

They left and the bed did.

The lights came on at what Vesper guessed to be seven or eight that night. Something thunked against the door and then it swung in and Dr. Clockwork appeared. "How are we feeling?"

Vesper shook his head. "Why are you in that wheel chair?"

Dr. Clockwork rolled himself over to the bedside. "My problems are too trivial to fuss about. Let's talk about you. Hmm. That gruel doesn't seem to have helped."

"Nobody has fed me today yet. I'm hungry. It gives me a headache and an upset stomach when I don't eat."

Dr. Clockwork reached up and smoothed back his thick grey hair. "Severe head pains, nausea. I thought so. My boy, let me explain something. Ever since the turn of the 21st Century the Cold War has intensified. It stands to reason since you can't trust the oriental mind. While no weapons show on the surface you can be sure that the mailed glove hides a velvet fist."

"That's not quite the right metaphor."

"The point being that they have all along been using subtle weapons against us." Dr. Clockwork laughed. "You might not think that one of the most insidious weapons known to humanity has been found out by a humble doctor in a humble free hospital. Well now, many great martyrs have had humble backgrounds. There have even been a happy few android martyrs. I may not be human but I love this old country of ours and I do my best to fight her enemies at home and abroad. That's how I came to discover Contagium DDW."

"What is that all about?"

"Contagium DDW," said the android, his voice quivering. "An insidious germ that they send over to debilitate our folks. Up in Isolation 3 I've got two dozen poor victims. No one on the outside has guessed the existence of Contagium DDW. No one knows of my work. Someday they will. A statue perhaps. There'll be a statue someday perhaps. The first one erected to honor an android."

"But when do I get out of here, doctor?"

"Who can tell," said Dr. Clockwork. "I'm sorry to have to tell you that you've been hit by Contagium DDW."

VESPER felt his forehead again. The automatic nurse never told him what his temperature was but he suspected he'd had a fever for several days. There was something wrong with the heating unit in his isolation room. The crystal in the thermostat was frosted over, making it difficult to be sure that the room was sometimes much too warm.

As Vesper paced the small room he reached now and then into the pocket of his hospital gown and got a handkerchief to wipe the perspiration off his face. His chest kept perspiring, too. The service was better in Isolation 3 than it had been down in the ward. They fed him regularly

and he was allowed an hour's stroll around the cubicle each day.

Something tapped on the view window of his door. Vesper turned to see the face of Dr. William F. Norgran looking in. The live doctor nodded and spoke into the com. "Excuse my not getting back to you sooner. Horrible diseases make me jittery."

Vesper was going to explain that he didn't really have any disease at all and had really only fainted because of the blood. He hesitated. He did feel odd, the fever and the sweating and all. Dr. Clockwork did seem to know about Contagium DDW, even though he never quite explained what it was to Vesper. "I can understand that," he said to Dr. Norgran.

"All things considered," said the doctor, "you're looking moderately well."

"Dr. Clockwork says I'm coming right along."

Dr. Norgran's face paled. "Too much. I've seen too much of you. Sorry. I'll call again later." He bolted.

Behind him the bed beckoned Vesper back.

* * *

Vesper didn't take his walks any more and the bed didn't insist. He was fighting against Contagium DDW but it was making him increasingly tired. It didn't help his condition that the

room forgot to feed him now and then or that the heat unit would act up in the quiet hours of the night, suddenly roasting or freezing him awake. Vesper took his pulse, the way he'd seen Dr. Clockwork do it.

The office gang had stopped sending get well cards. So far as he could remember his union guaranteed him his job back. He was also supposed to be getting \$52/day insurance money. Dr. Rex Willow never came, wasn't allowed to, up to Isolation 3. \$52/day was certainly the figure that Vesper remembered from his insurance brochure.

"It's taking its toll," said Dr. Clockwork, wheeling himself into the room. "Buck up, lad."

"I'm feeling pretty good."

Dr. Clockwork rolled nearer. "Hmm. The symptoms are spreading. It's insidious. Still I vow that someday there will be Contagium DDW sanitariums across the land, perhaps an island colony. I wonder if there can be an android saint. No matter. The thought would be in the hearts and minds of people. No

official sanction need be. Let me see your tongue."

"Ah," said Vesper, too fatigued to rise up to a sitting position.

"Yes, yes," said the android doctor.

"Something?"

"We're coming along. Don't fear."

"You know," said Vesper, "I wasn't too appreciative of you at first, doctor. Now I'm feeling I owe you a lot. For diagnosing this thing and helping me."

"Let's give you a shot," said the doctor. "Roll over."

"I really think I'm coming to trust you, doctor."

"Yes, they may call me Dr. Clockwork behind my back but I'm to be trusted." As he made the injection the android began to whirl in a new way. "I'm to be trusted."

"I think so now," said Vesper.

"I'm to be trusted. I'm to be trusted. I'm to be trusted. I'm to be trusted. I'm to be trusted. I'm to be trusted. I'm to be trusted. I'm to be trusted."

Vesper fell asleep before Dr. Clockwork finished speaking.

THE END



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By ARTHUR FORGES

Some months ago the ingenious Ensign De Ruyter solved a near-fatal dilemma (*Urned Reprieve*, AMAZING STORIES, October, 1964). Now the boy genius has another puzzle to solve.

IN ordinary circumstances the landing of the scoutship *HERSCHEL* would have disgraced Captain Morse. But considering the damaged engine-room, it was a miracle he brought her down intact. That was a man-made miracle; the fact that a planet was handy, and that its sun's spectrum showed the presence of beryllium, was a gift of Fate.

"What do we have on this place, anyhow?" Morse demanded of his executive officer, Lee Burton.

The lieutenant, who had been expecting the question, and had quietly, in his efficient way, used the electronic reference library—no bigger than a man's fist, but holding as many "bits" of information as a large library—replied, "Not much, Captain. It

hasn't been visited for fifty years. But there's some indication that the people are not only human, but converts to Buddhism—pretty fanatical ones, at that."

"Couldn't be better for our purposes," Morse said. "I mean, except for a more advanced technology, which was too much to hope for in this region of the Galaxy."

"I'm not so sure," Lieutenant Burton said darkly. "The last visitors here, fifty years back, said the natives were so busy with their prayer wheels, they didn't even want to stop long enough to exchange greetings."

"Will you look at that," young De Ruyter said, pointing to a gauge. "No air on the planet!" He was the youngest of the

three-man crew, just out of cadet-hood, and rated as an ensign. His chief claim to fame, aside from being a direct descendant of the legendary Dutch admiral of the same name—one of the few who had ever trounced the British at sea—was his escape from sure death at the hands of a primitive tribe some months earlier. His ingenuity in managing this had caused quite a stir in the service, and he'd had to take a lot of good-natured ribbing over the affair.

"I could have told you that," Burton said. "It's in the record. But not a case of no air—just damn little. What we'd call a partial vacuum."

"And the inhabitants are human?" De Ruyter wondered aloud.

"Certainly. They have huge chest cavities and lungs, and some extra oxygen-absorption bio-chemicals in their blood. And what air there is has more oxygen than ours, too; that helps. But we'll need our suits, Captain," he pointed out to his superior.

By now a number of the natives had already closed in on the ship. They were squat, barrel-chested, and seemed to favor saffron-colored robes. Every individual, man, woman, or child, held a wheel-on-a-stick gadget. Right hand on stick; left hand stroking the wheel whenever it

tended to slow down in its rotation, they watched the scoutship with a kind of vague curiosity, as if other things mattered much more.

"What in the name of heaven are those contraptions?" Captain Morse demanded. "Don't tell me it's a fad, like those silly Hoop-springs everybody on earth was playing with last month."

"Those," Lieutenant Burton said, a bit smugly, "must be praying wheels. Don't say I did not warn you."

"There's something written on the wheel, isn't there?" De Ruyter asked eagerly. "And they believe each time the wheel revolves once, a prayer goes off to Headquarters. Easier than talking, and you can think about more worldly matters at the same time. I wonder what the words are."

"I can tell you that," Burton said. He had the kind of head for detail, and the memory, a good Number One requires in the Service. "It says, 'The Jewel in the Lotus, Amen.' But as to what it means, there my information stops short, mainly because I don't much care."

"An atheist?" Morse asked drily. Not that he cared. The time was long past when a man's beliefs, or lack of them, had any relation to his qualifications either as a person or a technician. Behavior mattered; philosophy was irrelevant.

"How dare you—Sir!" Burton said, with a grin. "I'm a devout Muggletonian." It was his stock answer to the question, and he enjoyed having a chance to employ it. Observing the blank looks of his fellow officers, he added blandly, "A devoted follower of the sainted Ludowicke Muggleton."

WISELY, the captain dropped the subject.

"Enough clowning," he said. "We'd better move out and see about digging some beryllium ore. Otherwise, we might end up as Buddhists ourselves—until the air is gone." He didn't sound worried, and there was reason. The sturdy little scout was well equipped; her air was good for at least a month, even without power; and judging from the sun, the planet was bound to have the beryllium metal needed for repairs. It would be a simple job to make them, once a couple tons of metal were on hand. For that, naturally, native labor would be necessary—in fact, vital—but the men looked husky enough, and there were things on board to pay for help.

"How's the sun out there?" Burton asked De Ruyter, responsible for the routine planetfall checks. He already knew from the reference complex, but after all, ensigns should be kept busy.

"Pretty much like ours, but

farther away. Still, we'll need ultra-violet filters, because there's no air and consequently not much of an ozone layer for protection. Outside temperature, in the shade," he added, "is eighty-two degrees Fahrenheit; local time, a little after Noon. And our public awaits." He gestured to the solemn groups standing near the ship, each busy spinning a wheel.

"Let's go, then," the captain said. "The sooner we have a crew digging beryllium ore, the sooner we get home. I take it the conversion to Buddhism included some terrestrial language."

"Chinese was the one fifty years ago," Burton said. "It ought to work still." All three, as part of their basic training, knew several dozen dialects of all the tongues previously recorded. They could speak fluent Chinese, Arabic, or the clacking jabber of the planet Hooke—one of six that circled Saiph—as easily as their native English.

Once outside, they exchanged formal, rather subdued greetings with the Head Lama of the village. His huge chest moved easily as he sucked in the almost non-existent air, and De Ruyter wondered if thin air and Buddhism went together naturally. On Earth, the Tibetans, high in the Himalayas, thrived at an altitude that made a lowlander struggle for breath. And they

were devout Buddhists, of course.

After some preliminaries, Captain Morse got down to cases. He spelled out their need for beryl-lium ore. The three men, all passable geologists, would locate the most likely. Then it would take many men some days to collect the stuff, and more help would be needed in processing it. The electrolysis of the chloride would be up to the crew; they could handle that phase alone.

WHEN he had summarized his wants, Captain Morse waited for the inevitable question—payment. But it didn't come, so he had to broach the matter himself, knowing that by doing so, he was bound to pay more.

He had De Ruyter bring out certain stock items they could spare—miscellaneous tools; trinkets; foods. The natives, busy spinning, looked at the heap in-curiously, although a few eyes brightened with signs of greed.

"They would like some of these things," the lama said placidly, unaware he was delivering a death-sentence, "but the work you ask is impossible. It is all we can do to spare time for the most simple bodily needs. There can be no cessation of prayers. Unless so many thousands of thousands are said by Spring, our crops will fail; worse, our souls will not pass on schedule, as they should. We cannot help you."

"He wants a better deal," Burton said cynically. "And we'd be foolish to argue."

"Without your help we'll die," the captain said urgently. "Surely your souls would suffer from such an act."

"Not so," the lama said in a gentle voice. "You shall have wheels, and even with a late start, can manage a good death. Some of us—a few who have stayed awake long hours spinning extra prayers—will add ours to yours; and you need not sleep much, either; your souls are too important."

"This is Buddhism?" Burton sputtered.

"Probably a corrupt form," Captain Morse told him. "You can't expect a transplanted ideology to stay in its original form. If he means what he says, we're done for. No chance of our being able to gather and refine enough beryl ourselves—just the three of us. Impossible."

With the permission of the lama, he asked for volunteers, offering choice items from the stores, and even agreeing to one-armed labor, the other to spin — rather clumsily — the worker's wheel. It was useless. There was a feverish competition to churn out prayers, and nobody cared to fall behind.

Back in the ship, they held a gloomy conference, seeking a solution to the deadly dilemma.

"Do we have enough power to make a hundred little atomic wheels, I wonder?" Burton mused aloud. "If so, we could liberate a few pick-and-shovel men to dig ore."

"No," the captain said crisply. "We couldn't fabricate that many in time, even if we had the equipment and parts. All these people seem to use themselves is papery stuff, thin and light; fairly stiffish, too. Make nice fans, but that's all—and a hell of a lot of good fans are with no air," he added bitterly.

"Luckily," Burton said, "we have that paragon of ingenuity with us—Ensign De Ruyter, who foxed the innocent natives of a nameless planet by crushing a bronze urn with his giant muscles." De Ruyter flushed, and Burton relented. "Sorry, Will," he said. "Pure frustration; I did not mean to take it out on you. But, seriously, if that agile brain of yours ever came up with a gimmick, now's the time for all good men—you know the rest."

"It had to be an airless planet," the captain grumbled. "Ever see mice under a bell-jar, with the air pumped out? Nasty experiment; should be barred!"

"We've got about twenty days, I figure," the lieutenant said. "After that, no power for servicing the air. Then we'll be three mice, not blind, but mighty short-winded."

"And the *Congreve* not due around here for six weeks," Morse said glumly. "No point, I suppose, in sending out an S.O.S. on general principles?"

"Be foolish," his Number One agreed. "Nothing could possibly within range until *Congreve* gets near this space-coordinate-block." After a moment's silence, he added, "Any chance of doing it ourselves in twenty days?"

"Not a prayer; I did some calculating. Main thing is, these suits aren't built for hard physical labor over long periods. Water-removal and such problems would be hopeless after a few days. We have to get help, and fast, or that's it. Talk about mice! That sky look like glass to you—top of a bell-jar?"

"Looks just like our own, on Earth," Burton said wistfully. "Bit darker, maybe." He glanced at De Ruyter, stiffened, and snapped, "What's wrong, Will? You sick?"

"Sick?" the boy repeated, almost absently. "No, I feel fine—just fine. But what the Skipper said about a bell-jar—and you, about my crazy ideas. And that papery, stiff material they use here—it's crazy, but I don't see why not. Size may be a problem, or is it; no air resistance to speak of. Then there's friction, but you get that even on Earth, so . . ." His voice became an inaudible mumble.

"What's with you, Will?" the captain asked. "Let us in on it."

"We have plenty of paint," De Ruyter said, looking at him blankly. "It should work—it has to work." His eyes cleared. "Sir, I must see the Head Lama again. We may be able to give this village the damndest prayer wheels they ever saw. And for every one we set up, they'll have to give us a husky man, ready to work!" He was already scrambling into his suit, and they followed his example, too dazed for the moment to ask meaningful questions.

ONCE at the village, De Ruyter faced the Head Lama in front of his crude hut.

"Respected aged one," he said, "suppose I could show you how to make, and quickly, a prayer wheel that turns by itself, much faster than yours, and so simple that one man could set up many in a day to send thousands of words to Heaven? Would the owner of such a magic wheel be free to help us?"

The holy elder gave him a searching stare.

"If you could do this, we would bless you forever, and put many strong arms at your disposal. But it cannot be done."

"Can't it?" De Ruyter said grimly. "We'll soon find out."

There was a pile of papery sheets alongside the hut, de-

signed perhaps, for patching the roof or walls. The ensign took one, and with a sharp knife cut four paddle-shaped sections, each about a foot long by four inches in width. There was a clump of slender, plant-like organisms growing nearby. He strode to them, selected one with a straight stem about a yard tall, and plucked it from the ground. After trimming it with his knife, he thrust it back into the soft soil. Now his eager, inquiring eyes spotted the collection of little ceramic cups by the Lama's door. He seized one of these, about the size of a whisky tumbler, and with four dabs of cement from the pouch of his suit, fastened the four paddle-shaped vanes to it, equally spaced, their planes at right angles to the ground. Quickly, as the Lama gaped at him, he painted one side of each paddle with black enamel.

The quick-setting cement was already hard, making an enormously tougher bond than needed in this case. De Ruyter now inverted the ceramic cup—it had acquired four vanes, each with one pale and one black face—and set it on top of the stick. Then, his body tense with expectation, he stepped back, and looked up, almost beseechingly at the sky. The theory was clear enough, but performance was the ultimate test. In their partially evacuated

glass globes on earth, these devices, so often thought of as toys, spun merrily under the bright sun. The black face of each vane, absorbing more heat-rays than the white ones, which reflected them, became hotter, kicking away molecules of air as a result, so that the reaction, rocket-like, pushed the paddles.

There was a second of pregnant silence, as Captain Morse and Lieutenant Burton exchanged glances of sudden comprehension, changing to ones of delighted approval. Then, slowly at first, but soon gathering speed, the little cup was spinning on top of the stick, carried about by the four vanes, their dark sides propelling air molecules from heated surfaces.

The old lama gave a whimpering cry of wonder. He could easily visualize a strip of papery stuff, covered with letters, and fastened to the cup-bearing. It would send a message of devotion upwards at every revolution of the magic device. Only De Ruyter's tough suit saved him from some broken ribs, so mighty was the elder's hug . . .

* * *

When the three men, in their

newly-repaired ship, took off ten days later, loaded with honors and the gratitude of a nation, the lama wept.

"Never have so many prayers been spun out so fast—and it's only the beginning. Soon there will be thousands more of the wonder-wheels. We shall all pass most quickly to the highest spheres, thanks to you. Are you sure," he inquired wistfully, "that they won't turn at night, too?"

"I'm sure," the ensign said, his lips twitching briefly.

"No matter," the old man sighed. "So many by day; and then if some of my people want to spin a few extra prayers in the dark . . ."

"Why not?" Captain Morse said briskly, winking at his crew.

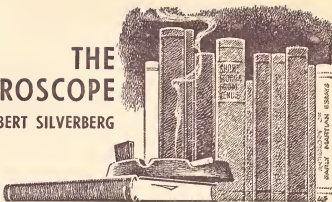
As the planet grew dim and small behind them, Burton said: "The whole place is one outdoor radiometer, so to speak."

"But only Will saw it," the captain reminded him. Then he tapped the boy on the shoulder. "I dub thee 'Wheeler-Dealer Ensign,'" he intoned. Then punning outrageously: "Long may your agile brain wave—Alpha, Beta, the works!"

THE END

THE SPECTROSCOPE

By ROBERT SILVERBERG



Doctor Mirabilis, by James Blish. *Faber and Faber* (24 Russell Square, London. 25/-) 287 pages.

This thorny, difficult, fascinating novel is not really a book of science fiction, through it has some minor elements of fantasy, nor is it readily available in the United States. Yet I think it merits discussion here, as a major work by a man who is of high importance in our field. And those who have savored James Blish's science fiction would do well to find some way of importing the book at hand, for it is a fit companion to his stories of the future.

The genre of this one is the historical novel. Its subject is Friar Roger Bacon, thirteenth-century scholar, sometimes alchemist, convicted schismatic. Blish begins with Roger as a cal-

low youth and carries him through a long and gnarled career to his final moments, in great old age. The sense of the period is admirably conveyed; Blish has obviously steeped himself in the era, and though a medievalist—which I am not—may find flaws in the fine detail, I am not prepared to do so. At least not to any great extent; some slips are inevitable, and it struck me that a reference to the sixteenth-century alchemist Paracelsus was anachronistic here, as was the name of a cat Petronius, for Petronius was unknown to the men of Roger Bacon's time. And it seems a bit like cheating for Blish to have had the songs of Orff's *Carmina Burana* sung from time to time in the book; they are too familiar, too easily come by, and break the

texture of strangeness through no fault of their own.

The book displays Blish's great virtues as a novelist, and his failings as well. The prose is supple, eloquent, flexible, everywhere capable of meeting the demands of the theme. Consider the craftsmanship that went into this passage, for example:

"She rode looking straight forward, her eyes calm and contemplative, her profile in an exquisite balance of awareness and repose upon which Adam could hardly bear to look. Off, there were sometimes the calls and cracklings of the hunting, but they were muffled and carried no meaning here. The day, too, was curiously muffled; for though the sun was brilliant, in the tall Charnwood aisle there was a diurnal dusk, paved with flickering many-pointed little suns like a spatter of golden tears."

There are even nobler sections, such as the whole of the chapter entitled "The March of Ancona." But on the negative side is Blish's familiar refusal to make things easy for the reader, magnified here into an austere uncompromising stubbornness that renders great sections all but incomprehensible. For reasons best known to him, Blish has chosen to shift from the always engrossing story of Roger Bacon from time to time and to plunge deep into the thicket of thir-

teenth-century English politics. The plots and counterplots thus revealed are only loosely integrated with Roger's story, and so little of the background is revealed that they become vast digressions and nothing more. Then, too, a pivotal part of the plot—Roger's imprisonment by the church—swings on his defense of a heresy that has hardly been mentioned in the story. It is there, planted at the proper place, but Blish assumes a familiarity with the Joachite teachings that this reader, at least, did not have.

I wish the book had not left Bacon's viewpoint so often. I wish its author had not presupposed so much erudition on the part of the readers. The book often seems to be lacking essential scaffolding, and when it veers from Roger it dissolves into gray haze. No matter. It's a remarkable achievement, offering keen insight into an era, a man, and the nature of the scientific process. Publication in this country does not seem to be in the offing. This is an important work by a leading writer of our microcosm, and it warrants searching out and careful reading.

The Rest of the Robots, by Isaac Asimov. Doubleday, \$5.95. 556 pages.

Surely no science fiction writer

has been as adept at maneuvering his books through edition after edition as Isaac Asimov. He extracts maximum mileage: magazine serialization, hardcover, paperback, a second hardcover edition, a second paperback—on and on to create a bibliographer's nightmare. Only two years ago Pyramid published the most recent paperback of *The Caves of Steel*. Even more recently, Lancer did the second (or third?) softcover reissue of *The Naked Sun*. Now here are both books back in hard covers again, in a jumbo omnibus that also includes eight shorter stories.

This bulky new volume comprises the companion to Asimov's *I, Robot*, which Doubleday reissued last year after the customary parade of editions. That book included nine linked stories dealing with the evolution of positronic robots; it set forth Asimov's famous Three Laws of Robotics, and developed them in every imaginable way, resulting in what amounted to a textbook demonstration of how to write stimulating science-fiction.

There were some robot stories left over, and here they are—several that are integrally connected to the *I, Robot* group but were written after that book appeared, and others that go back to the beginning of Asimov's career a quarter of a century ago and have been dusted off because

they deal with robots. Most of these are pretty minor jobs by Asimovian standards, and a couple of them are minor by anybody's standards. Appended to them are the two superb novels dealing with the adventures of the robot detective, R. Daneel. *The Naked Sun* is a first-class science-fiction story that has few peers, and *The Caves of Steel* is a great deal better than that.

Asimov's stories go into these multiple editions for one reason above all others. They are marvelously interesting, wonderfully readable, intellectually provoking—good stories, that is. They get re-re-reprinted because they find an eager readership. Pinning down the qualities that make his work so good is a curiously difficult job, though. His prose does not sing like Ted Sturgeon's; his characters, while they are no stereotypes, do not attain the depth of the people in a Budrys novel; his imagination does not soar like that of Arthur C. Clarke; he buckles no swashes in the Poul Anderson manner. The stories are quiet, methodical, deliberate. The style is precise and unobtrusive, at least in the novels. There is a lot of talking, remarkably little action.

What's the secret? Internal consistency is part of it; an Asimov story always makes sense from start to finish, because its author obviously is in complete

technical control throughout. Dexterity of plotting is another factor; the twists and turns and bypasses are superbly managed. Asimov is a storyteller in the classic tradition, with long grey beard and glittering eye, and when he begins to speak we cannot choose but listen.

The stories are interspersed with comment and chatter by Asimov. These prefaces and postludes are interesting and sometimes very funny, but they also tend to a kind of flippancy. And the title of the book may have seemed like a good idea to somebody, but it really wasn't.

Rogue Moon, by *Algis Budrys*. *Gold Medal Books*, 45¢. 176 pages.

"A Great Science Fiction Novel," proclaims the jacket blurb of this reissue, and for once the blurb-writer isn't just making noises. When this one first appeared in 1960 I thought it was the best novel of the year, and then some; a lot of others felt the same way, although the Hugo for that year somehow

went to another writer. Here it is back in print, and anyone who missed it four years ago can snare it this time around. I suspect it'll stay in print for a long time to come.

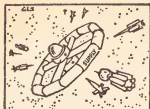
The book is about a mysterious and incomprehensibly fatal formation on the moon. It's also about the methods used to explore that formation. It's also about such matters as love and death and the identity of human beings. The characters, without exception, are right at the brink of insanity or just over that brink, and the unwinding tensions of the plot force them to the bounds of their limitations in a breathtaking way. It's no trick for a writer to make his characters act; to make them react and interact is the difficult thing, and Budrys has achieved that here in a book that is a triumph of narrative skill. And the pages from 159 to 165, when his men finally get into that thing on the moon, are, I submit, the most terrifying six pages in any science fiction novel I have ever read.

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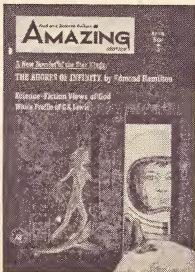
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